

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS

STATE OF MICHIGAN, STATE OF WISCONSIN,
STATE OF MINNESOTA, STATE OF OHIO,
and COMMONWEALTH OF PENNSYLVANIA,

Plaintiffs,

V.

Case No. 1:10-cv-04457

Hon. Robert M. Dow, Jr.

UNITED STATES ARMY CORPS OF
ENGINEERS and METROPOLITAN
WATER RECLAMATION
DISTRICT OF GREATER CHICAGO

Defendants.

**PLAINTIFFS' REPLY IN SUPPORT OF
MOTION FOR PRELIMINARY INJUNCTION**

TABLE OF CONTENTS

	<u>Page</u>
Index of Authorities	iv
I. If a preliminary injunction is not entered now, Plaintiffs will likely suffer irreparable injury.	5
A. Absent the requested injunctive relief, it is likely that conditions maintained by Defendants in the CAWS will allow enough Asian carp to enter Lake Michigan to permit a reproducing population to become established there.	5
1. Asian carp have rapidly expanded northward through the Mississippi River Basin, creating huge populations in Illinois rivers that are connected to the CAWS. The CAWS, as now maintained by Defendants, provides a conduit through which some Asian carp have already moved, and others are likely to move, into Lake Michigan.....	5
2. The Defendants' "principal" defense against Asian carp migration from the CAWS to the Great Lakes is an unproven, experimental electric barrier that should be supplemented with a physical barrier.....	6
a. The electric barrier has not been 100% effective for keeping carp from migrating to Lake Michigan.....	6
b. The electric barrier will continue to allow Asian carp to enter the Great Lakes.	8
(1) Using an electric barrier as an absolute barrier to keep all Asian carp out of the Great Lakes is an unproven, experimental application of this equipment.....	8
(2) When the electric barrier is operated at voltages and pulse rates that do not create unacceptable health and safety risks, it cannot prevent Asian carp from entering Lake Michigan.....	9
(a) The health and safety risks.	10
(b) The Corps has identified several scenarios where Asian carp are not prevented from passing through the electric barrier at current operating parameters.....	11
(c) There is a real concern that the barrier will not be sustainable.	13
3. Netting, electrofishing and poisoning of Asian carp will not prevent them from entering the Great Lakes.....	14
B. The injury is both imminent and likely irreparable.	15

II.	The balance of equities favors Plaintiffs and the requested injunction is in the public interest.....	21
A.	Public Health and Safety.	21
1.	Use of sluice gates for discretionary diversion of water from Lake Michigan into the CAWS.	21
2.	Use of sluice gates for flood control.....	23
3.	Use of Locks for flood control.	24
4.	Impact of block nets or similar interim physical barriers.....	26
5.	Impact on Chicago Police and Fire Departments and Coast Guard Operations.....	27
B.	Transportation and economic impacts.	29
III.	Plaintiffs are likely to succeed on the merits of their claims.	31
A.	Plaintiffs' public nuisance claim seeks prospective equitable relief only and therefore comes within the APA § 702 waiver of sovereign immunity.	31
B.	The City's argument that this case presents a non-justiciable political question is without merit.....	35
1.	The political question doctrine does not bar federal common law cases.	35
2.	The Supreme Court already has explicitly rejected the political question defense in interstate nuisance and related cases.	37
3.	This case does not implicate any of the <i>Baker v. Carr</i> factors.....	37
a.	This case will be decided under judicially manageable standards and does not require an initial policy determination for nonjudicial discretion.	37
b.	Adjudication of this action will neither show a lack of respect for coordinate branches of government nor present a potential for embarrassment from multifarious pronouncements by various departments in question.....	39
C.	Plaintiffs are likely to succeed on the merits of their common law public nuisance claim.	39
1.	Standards governing displacement.	40

2.	The federal statutes cited by Defendants and the City do not comprehensively and specifically address the particular question raised in Plaintiffs' action	43
D.	Plaintiffs are likely to succeed on the merits of their appeals under the APA.	47
1.	The decision by the Corps to not consider extended lock closure as a means for preventing migration of Asian carp into the Great Lakes was arbitrary and capricious.	48
2.	In addition to their challenge to the "Interim III" decision, Plaintiffs have appealed from, and are likely to prevail in, a series of other final decisions by the Corps.....	50
	Conclusion and relief requested.....	53

INDEX OF AUTHORITIES

	<u>Page</u>
 <u>Cases</u>	
<i>Associated Fisheries of Maine, Inc. v. Daley</i> , 954 F. Supp 383 (D. Me. 1997)	49
<i>Attorney General v. Jamaica Pond Aqueduct Corp</i> , 133 Mass. 361 (1881)	34
<i>Attorney General v. Tudor Ice Co.</i> , 104 Mass. 239 (1987)	35
<i>B.K. Instrument, Inc. v. United States</i> , 715 F.2d 713 (2nd Cir. 1983)	35
<i>Baker v. Carr</i> , 369 U.S. 186 (1962).....	36, 37, 38
<i>Bennett v. Spear</i> , 520 U.S. 154 (1997).....	52, 53
<i>Blagojevich v. Gates</i> , 519 F.3d 370 (7th Cir. 2008)	31, 32
<i>Board of Health v. Vink</i> , 184 Mich. 688; 151 N.W. 672 (1915).....	35
<i>Bowen v. Massachusetts</i> , 487 U.S. 879 (1988).....	33
<i>Chicago & Southern Air Lines, Inc. v. Warterman S.S. Corp.</i> , 333 U.S. 103 (1948).....	53
<i>Commercial Trust Co. v. Miller</i> , 262 U.S. 51 (1923).....	36
<i>Connecticut v. American Elec. Power Co., Inc.</i> , 582 F.3d 309 (2d Cir. 2009)	passim
<i>Dalton v. Specter</i> , 511 U.S. 462 (1994).....	51, 52
<i>Franklin v. Massachusetts</i> , 505 U.S. 788 (1992).....	51

<i>Georgia v. Tennessee Copper Co.</i> , 240 U.S. 650 (1916).....	38
<i>Goldwater v. Carter</i> , 444 U.S. 996 (1979).....	38
<i>Illinois v. City of Milwaukee</i> , 406 U.S. 91 (1972).....	32
<i>Illinois v. Milwaukee</i> , 406 U.S. 91 (1972).....	passim
<i>Kennedy v. City of New York</i> , 1986 U.S. Dist. LEXIS 26736, *5-6 (S.D.N.Y. 1986)	34
<i>Luther v. Borden</i> , 48 U.S. (7 How.) 1 (1849)	36
<i>Massachusetts v. United States Veterans Administration</i> , 541 F.2d 119 (1st Cir. 1976).....	34
<i>Megapulse, Inc. v. Lewis</i> , 672 F.2d 959 (D.C. Cir. 1982)	35
<i>Middlesex Cty. Sewerage Auth. V. National Sea Clammers Ass'n.</i> , 453 U.S. 1 (1981).....	32
<i>Milwaukee v. Illinois</i> , 451 U.S. 304 (1981).....	passim
<i>Missouri v. Illinois</i> , 180 U.S. 2084 (1901).....	34
<i>Mistretta v. United States</i> , 488 U.S. 361 (1989).....	36
<i>Mobil Oil Corp. v. Higginbotham</i> , 436 U.S. 618 (1978).....	42
<i>Mugler v. Kansas</i> , 123 U.S. 623 (1887).....	33
<i>New England Legal Foundation v. Costle</i> , 666 F.2d 30 (2nd Cir. 1981)	45, 46
<i>North Carolina ex rel. Cooper v. Tennessee Valley Authority</i> , No. 09-1623, 2010 U.S. App. LEXIS 15286 (4th Cir. July 16, 2010)	47

<i>Ohio v. Wyandotte Chemicals Corp.</i> , 401 U.S. 493 (1971).....	37
<i>Oneida Indian Nation of New York v. County of Oneida</i> , 719 F.2d 525 (2d Cir. 1983)	39, 42
<i>Port of Boston Marine Terminal Ass'n v. Rederiaktiebolaget Transatlantic</i> , 400 U.S. 53 (1970).....	53
<i>Raz v. Lee</i> , 343 F.3d 936 (8th Cir. 2003)	31
<i>Rhode Island v. Massachusetts</i> , 37 U.S. 657 (1838).....	37
<i>Southern Offshore Fishing Ass'n v. Daley</i> , 995 F. Supp. 1411 (M.D. Fla. 1998).....	49
<i>Spectrum Leasing Corp. v. United States</i> , 764 F.2d 891 (D.C. Cir. 1985).....	34, 35
<i>Texas v. Pankey</i> , 441 F.2d 236 (10th Cir. 1971)	42
<i>The Presbyterian Church (U.S.A.) v. United States</i> , 870 F.2d 518 (9th Cir. 1989)	31
<i>Trudeau v. Federal Trade Comm</i> , 456 F.3d 178 (D.C. Cir. 2006).....	31, 32
<i>Tull v. United States</i> , 481 U.S. 412 (1987).....	33
<i>United States v. City of Detroit</i> , 329 F.3d 515 (6th Cir. 2003) (<i>en banc</i>)	31
<i>United States v. Texas</i> , 507 U.S. 529 (1993).....	40, 41
<i>United Steelworkers of Am. v. United States</i> , 361 U.S. 391 (1959).....	35
<i>Village of Pine City v. Munch</i> , 42 Minn. 342; 44 N.W. 197 (1890)	35

Statutes

5 U.S.C. § 702.....	4, 31, 33
16 U.S.C. § 4722.....	43, 44, 45
16 U.S.C. § 4722(i)(3)	43
16 U.S.C. § 4725.....	43
28 U.S.C. § 1331.....	32

INTRODUCTION

Plaintiffs bring their Motion for Preliminary Injunction because we have reached the point described by one of the United States' principal experts, as a "critical juncture" (Chapman Dec, ¶ 22), in Asian carps'¹ movement up the Mississippi River Basin, through the Chicago Area Waterway System (CAWS) and into the Great Lakes.² More than seven months ago, the United States Army Corps of Engineers (Corps) acknowledged the grave threat:

As Asian carp have migrated steadily northward, the threat of this species gaining access to Lake Michigan and the Great Lakes has become generally recognized in the environmental community and throughout numerous federal, state and local government agencies as having great significance with *potentially devastating ecological consequences for the Great Lakes*.

* * *

The Corps understands that, as a species which devours zooplankton, phytoplankton, and vegetation – the basis for the food chain of all aquatic species – in huge quantities, Asian carp have crowded out most other species in some areas of the Mississippi River basin, and could have a similar impact on the shallow water areas, shorelines, and tributaries of the Great Lakes. The Asian carp could also limit recreational activity due to the silver carp's penchant for jumping out of the water when startled, and could significantly alter and perhaps permanently damage near shore wetlands' ecosystems. Indeed senior officials in EPA have told us that *preventing Asian carp migration into Lake Michigan is probably the most acute new invasive species threat facing the Great Lakes*.³

Thus, the United States has for some time admitted that it "agrees that allowing a reproducing population of Asian carp to establish itself in Lake Michigan likely would be an

¹ As in Plaintiffs' Motion, "Asian carp" as used here, refers to two species of Asian carp: bighead and silver carp.

² Plaintiffs' Reply addresses the Responses in Opposition to their Motion filed by the Corps, the Metropolitan Water Reclamation District of Greater Chicago (District) and the proposed Intervenor/Amicus Curiae the City of Chicago (City). Because the Court has not yet ruled on the Motions to Intervene filed by the Coalition to Save Our Waterways and Wendella Sightseeing Company, Plaintiffs have not replied to their other concurrently filed documents, but will do so if they are allowed to intervene or participate as amici curiae.

³ (Peabody Dec I, S. Ct. ¶¶ 5-6, emphasis added) available at <http://www.supremecourt.gov/specmastrpt/OpptoMemforUSinOpposition.pdf>.

irreparable injury"⁴ and such harm "would be both grave and irreparable."⁵ And, it also agrees "that if Asian carp have entered Lake Michigan, it is highly important to keep out additional fish to prevent a self-sustaining population from arising."⁶

The imminence of the risk to the Great Lakes has only increased, not diminished, with time:

- It is undisputed that enormous populations of both bighead and silver carp remain in Illinois rivers directly connected to the CAWS.
- Credible scientific evidence collected by the experts retained by the government itself – multiple detections of bighead and silver carp eDNA at multiple locations in the CAWS system in late 2009 and early 2010 – indicate that fish of both species were present beyond the Corps' electrical barrier system, including in Lake Michigan itself.
- On June 22, 2010, a live bighead carp was captured in Lake Calumet only a few miles from Lake Michigan.
- Despite repeated requests by Plaintiffs, the Defendants have continued to routinely operate the locks and sluice gates they control in a manner that allows Asian carp to pass through them, and instead have persisted in relying upon a continuation of the Corps' experimental and unproven electrical barrier system and conventional fishing methods that the government's own expert acknowledges are incapable of detecting and capturing all Asian carp that may be present in the CAWS.

Under these circumstances and as demonstrated in Plaintiffs' Motion and supporting documents, Plaintiffs have shown, and can further show at the hearing on this Motion, that unless this Court grants the preliminary injunctive relief they request, Plaintiffs are indeed likely to suffer imminent, severe and irreparable harm. Defendants' Responses seek to obscure and confuse the issue of imminent harm by attempting to shift the focus to the timing of when the ecological and economic damages resulting from the establishment of a reproducing population

⁴ (US Mem, S. Ct. p 43), available at http://www.supremecourt.gov/specmastrpt/US_Memorandum_in_Opposition.pdf.

⁵ (US Mem. p 47.), available at http://www.supremecourt.gov/specmastrpt/US_Memorandum_in_Opposition.pdf.

⁶ (US Mem Opp Ren Mot P I, p 21), available at http://www.supremecourt.gov/specmastrpt/Mem_for_the_US.pdf.

of Asian carp in the Great Lakes will become fully apparent. Plaintiffs do not claim, and need not prove, that in the absence of an injunction, widespread ecologic and economic harm will immediately occur. Rather, the imminent harm that Plaintiffs face, and that judicial intervention is urgently needed to avoid, is reaching a biological tipping point, at which the conditions maintained by Defendants allow a sufficient number of silver and/or bighead carp enter Lake Michigan to give rise to a reproducing population there. The longer those conditions are allowed to persist, the more imminent the likelihood of that harm becomes.

Absent the injunctive relief requested by Plaintiffs – the use of existing and supplemental physical barriers to reliably minimize the risk of additional Asian carp entering Lake Michigan through the CAWS – Plaintiffs will likely suffer irreparable harm before this case can be decided on its merits. The status quo – Lake Michigan free of an established population of Asian carp – once altered, cannot plausibly be restored by a subsequent order of this or any other Court.

Contrary to Defendants' assertions, Plaintiffs have not only shown that they are likely to suffer imminent and irreparable harm, but have also satisfied each of the other factors for issuance of the requested preliminary injunction. First, the balance of harm favors Plaintiffs. The United States' recent attempts to downplay and characterize as "uncertain" the grave harm it has previously admitted, are not persuasive. The fact that the enormous environmental and economic harm stemming from the establishment of Asian carp in the Great Lakes may take some time to become apparent does not make it any less real or actionable, or alter the fact that it is likely to be both permanent and orders of magnitude greater than the localized, temporary economic harm associated with changes in some navigation that would result from the injunctive relief requested by Plaintiffs.

Moreover, the relief sought by Plaintiffs is consistent with the public interest. Plaintiffs have explicitly tailored their requested injunction to measures that would be consistent with protection of public health and safety. Among other things, Plaintiffs' requested injunction would allow opening of sluice gates and locks as needed to prevent flooding.

In addition, upon further consideration of the concerns raised by Defendants and the City of Chicago regarding the potential impact of routine sluice gate closure (i.e., precluding "discretionary diversion" of Lake Michigan water through sluice gates) upon water quality and navigation within the CAWS, Plaintiffs, in this Reply, and as more specifically explained below, are modifying their request for preliminary injunction so that such discretionary diversion of Lake water through sluice gates could continue, provided that screens or bar grates at least equivalent to those already installed by the District in two sluice gates and those proposed by the Corps for installation in two other sluice gates, are installed and maintained in each sluice gate that is opened, for any purpose.

Plaintiffs have also shown they are likely to succeed on the merits of their claims. Contrary to the Corps' assertions, Congress has, through 5 U.S. C. § 702, broadly waived sovereign immunity with respect to the equitable relief sought here by Plaintiffs under the common law public nuisance doctrine. Moreover, such common law relief is available where, as here, Congress has not comprehensively addressed and displaced common law on this subject. Further, contrary to the City of Chicago's suggestion, this case does present a justicable controversy, not a "political question" the adjudication of which would infringe the constitutional separation of powers. Finally, Plaintiffs have properly alleged, and are likely to prevail on their claims that the Corps has made a series of final decisions, each reviewable under the APA that are arbitrary and capricious or otherwise unlawful.

ARGUMENT

- I. If a preliminary injunction is not entered now, Plaintiffs will likely suffer irreparable injury.**
 - A. Absent the requested injunctive relief, it is likely that conditions maintained by Defendants in the CAWS will allow enough Asian carp to enter Lake Michigan to permit a reproducing population to become established there.**
 - 1. Asian carp have rapidly expanded northward through the Mississippi River Basin, creating huge populations in Illinois rivers that are connected to the CAWS. The CAWS, as now maintained by Defendants, provides a conduit through which some Asian carp have already moved, and others are likely to move, into Lake Michigan.**

It is undisputed that both bighead and silver carp are fecund, quite mobile, and adapt to varying environmental conditions, including conditions similar to those present in at least some portions of Lake Michigan and connected waterways. (Newcomb Aff, ¶¶ 14 – 20; Chapman Dec, ¶ 21.) "Asian carps are clearly capable of successfully invading a wide variety of rivers and lakes and can move long distances to select habitats that are conducive to their survival and growth." (Chapman Dec, ¶ 21.) It is likewise undisputed that they have established enormous populations in Illinois rivers and ponds where they had not existed a few years before. And, it is widely agreed among biologists who study invasive species that "propagule pressure" – the number and quality of invading organisms – is directly proportional to the likelihood of a successful invasion and that "minimizing the number of invading individuals is key to preventing successful establishment of a species." (Chapman Dec, ¶ 6.)

Unfortunately, the CAWS, as now maintained, provides several direct hydraulic connections between the Asian carp-infested water in the Illinois and Des Plaines Rivers and Lake Michigan. The Defendants have relied, and in opposition to Plaintiffs' Motion continue to principally rely, upon two means that they assert are sufficient to prevent the continued migration of Asian carp through the CAWS to Lake Michigan: (a) the Corps' electrical Dispersal

Barrier System and (b) conventional fishing for Asian carp with nets in the CAWS. As explained below, these methods are neither singly nor in combination sufficient to preclude Asian carp from entering Lake Michigan through the CAWS.

2. The Defendants' "principal" defense against Asian carp migration from the CAWS to the Great Lakes is an unproven, experimental electric barrier that should be supplemented with a physical barrier.

a. The electric barrier has not been 100% effective for keeping carp from migrating to Lake Michigan.

As noted in Plaintiffs' principal brief, Dr. David Lodge, a professor at the University of Notre Dame, is a recognized expert on aquatic invasive species, and in particular on the invasion potential posed by Asian carp. The Corps itself has acknowledged that Dr. Lodge is a "leading scientist" on the issue of this invasion. In fact, at the request of the Corps, Dr. Lodge and his team spent several months sampling waters from the CAWS and as a result has concluded that there are "multiple" Asian carp in the waterways north of the electric barrier. In a Declaration filed by the Corps with the Supreme Court, Dr. Lodge addressed the positive eDNA samples taken from the CAWS:

Based on our understanding of the waterway and other potential pathways, we believe that no explanation other than the presence of *multiple living silver and bighead carps* can plausibly explain the entire spatial and temporal pattern of positive results for silver and bighead eDNA in the waterway." (Ex 14, Lodge Dec, ¶ 46 emphasis added.)

This conclusion is confirmed by the Corps' submission to this Court of the declaration of Duane Chapman, a biologist with the U.S. Geological Survey (USGS) who stated:

Even before the bighead carp was captured in Lake Calumet, I was reasonably certain that some undetermined number of both bighead and silver carp were present above the barrier, because of the eDNA data. The eDNA data is not calibrated to indicate the number of number of fish present, but I believe that collection of a positive eDNA sample is a good indicator of fish presence. (Chapman Dec, ¶ 26.)

There is no evidence presented by Defendants that the Asian carp referenced by Lodge or Chapman inhabited the CAWS north of the electric barrier prior to its installation. These fish somehow evaded the electric barrier.

Further proof that the electric barrier is unreliable, and consistent with the eDNA testing results relied on by both Lodge and Chapman, as noted above, a living bighead carp was captured in June in Lake Calumet, north of the electric barrier. Considering both the eDNA evidence and the fact of the captured fish, the only reasonable conclusion that can be drawn is that the barrier, for whatever reasons, is not 100% effective at preventing Asian carp from migrating to the Great Lakes.

Defendants have gone to some length to suggest that the positive eDNA samples were the result of carp DNA entering the CAWS through means other than a live Asian carp bypassing the electric barrier. As discussed in Plaintiffs' initial brief, this suggestion has already been forcefully laid to rest by Dr. Lodge in his Declaration filed by the Corps in the Supreme Court, and by Dr. Newcomb in her Affidavit filed in this action, (Lodge Dec, p 22, Ex 14; Plaintiffs' Brief, p 13-14) and nothing in the Defendants' submissions to this Court credibly refutes the conclusions of these experts. Likewise, as noted above, any suggestion that the bighead carp captured in Lake Calumet did not swim through the CAWS to that location is pure speculation. Given the expert opinions of Drs. Lodge and Newcomb, and no credible evidence that the carp actually caught above the barrier didn't swim through it, there is good reason to believe that the electric barrier has not protected the Great Lakes from the leading edge of an imminent Asian carp invasion. As admitted by Major General Peabody, Commander, Great Lakes and Ohio

River Division of the Corps, "It is important to recognize that the electrical barriers do not provide a guarantee that Asian carp will be prevented from entering Lake Michigan."⁷

b. The electric barrier will continue to allow Asian carp to enter the Great Lakes.

(1) Using an electric barrier as an absolute barrier to keep all Asian carp out of the Great Lakes is an unproven, experimental application of this equipment.

The electric barriers are essentially bundles of steel cables or steel "billets" laid across the bottom of the Chicago Sanitary and Ship Canal (CSSC) and connected to electric generators that can send pulsed DC current of anywhere from 1 to 4 volts per inch. (Quarles Dec, ¶¶ 13, 14, 22; Peabody Dec, ¶ 22.) This current generates an electrical field in the water that can, but does not always, repel, mobilize or kill fish or other animals that cross its path. While this is a relatively simple idea, as noted by Major General Peabody:

As the largest fielded operation electrical dispersal barrier in the world, the fish barrier effectively constitutes a large and complex research and development (R & D) project with all the attendant complexities and challenges of implementing a project while research and development of project details and impacts evolve, and new information is learned. (Peabody Dec, ¶ 20.)

In other words, the electric barrier is a unique science project that has been pressed into service before its capabilities and side effects have been determined through the completion of research and development. Under the present circumstances, continuing to rely upon such a mechanism as the principal means for protecting the Great Lakes from an invasion of Asian carp calls the Corps' judgment into serious question.

The undisputed facts confirm that the electric barrier is patently experimental. A review of the Declarations of General Peabody, Colonel Quarles and Charles Shea make it clear that the

⁷ Statement of Major General John Peabody before Subcommittee on Water Resources and Environment, Committee on Transportation and Infrastructure, United States House of Representatives, February 9, 2010, p 3, available at: http://www.supremecourt.gov/specmastrpt/US_Appendix_to_Renewed_Opp.pdf.

Corps is studying, evaluating and changing the way the barrier is operated on nearly a continuous basis, and with regard to multiple aspects of its operation. This is not surprising under the circumstances. As suggested by General Peabody, electric barriers have been used elsewhere, but never on a scale comparable to the CAWS barrier. Plaintiffs are aware of no other application such as this where an electric barrier has been employed to absolutely bar a new invasive species from entering and potentially devastating an ecosystem as significant and large as the entire Great Lakes system. Using an electric barrier to deter fish from entering water intakes for power plants or from entering an inland lake just does not compare to the current situation where the consequences of failure are so far reaching.

As shown below, the Corps really has no idea how many fish may be evading the electric barrier at any given time or over any given period. Coupled with the admission by the Corps that it has no idea how many Asian carp it will take in Lake Michigan to reach the tipping point marked by the establishment of a reproducing population, (Chapman Dec, ¶¶ 10-12, 19, 24, 26-27) it is astounding that the Corps would put virtually all its eggs in this one basket, particularly when there is the option of employing reliable and effective physical barriers such as closing existing locks and maintaining screens in sluice gates.

(2) When the electric barrier is operated at voltages and pulse rates that do not create unacceptable health and safety risks, it cannot prevent Asian carp from entering Lake Michigan.

Because it is experimental, the Corps does not know what the optimal operating parameters for the electric barrier are. Even though the Corps has been operating one or two electrical barriers since 2006, it has just received a "draft" report from its vendor "on all of the optimal operating parameters testing completed since April 2009", with a final report estimated in August 2010. (Quarles Dec, ¶ 32.) The Corps has not disclosed what the draft report says as

to whether it is possible to operate the barriers in a manner that will prevent Asian carp from entering Lake Michigan. The discussion in the declarations it submits with its brief suggest that there is a quagmire of unknowns, and it leaves the firm impression that there is a basic tension between operating the barriers at a voltage high enough to prevent migration of Asian carp, while still maintaining the safety of the public. It is clear that operation of the barrier is a compromise that does not fully prevent the migration of Asian carp, particularly when it is operated in a manner that does not present a significant health and safety risk.

(a) The health and safety risks.

Electrocution risk. In his Declaration submitted by the Corps, Charles Shea, project manager for the electric barrier, notes that "The likelihood of injury or death for people who become immersed in the water would also increase as operating parameters are increased to higher voltages and pulse rates. This is not being evaluated further at this time as the risks for an immersed person are already high and people must be kept out of the water at the current operating parameters." (Shea Dec, ¶ 18.)

Sparkling danger. Another serious danger described by the Corps that prevents operation of the barrier at higher voltages, is the risk of arcing or sparking when metal boats pass through the electrified waters. According to Mr. Shea "this is a significant concern as barges carrying explosive or flammable materials do traverse the CSSC." (Shea Dec, ¶ 19.) The response to this danger was having the Coast Guard enact a Regulated Navigation Area (RNA) around the barriers to reduce the risk and to restrict operation of the electric barrier to its current operating parameters until and unless the Coast Guard completes "additional testing for the new parameters to determine how safety risks have changed . . ." (Shea Dec, ¶ 19.) This means that even if higher operating voltages would be more effective at preventing migration of Asian carp, they cannot be employed until the Coast Guard determines there is no risk of explosion or fire.

The Corps' submissions do not indicate that such a conclusion has been reached by the Coast Guard.

Magnetic field. In addition to the risk of electrocution and explosion from higher operating voltages, the electric barrier also generates a significant magnetic field "in the air" (Shea Dec, ¶ 22.) Again, there is an apparent concern that increasing the operating parameters of the electric barrier could increase the safety risk associated with this magnetic field. (Shea Dec, ¶ 22.)

Ground effects. The other major safety concern with the electric barrier is with electric fields that leave the water and enter the ground. Although the Declarations submitted by the Corps don't specifically say that this risk increases when the operating parameters increase, they do acknowledge that they are conducting tests and performing computer modeling to try to predict what risks are associated with "different barrier operating scenarios" suggesting that increases in operating parameters could increase the risks on the ground. (Shea Dec, ¶ 21.)

(b) The Corps has identified several scenarios where Asian carp are not prevented from passing through the electric barrier at current operating parameters.

Small fry. A significant shortcoming of the electric barrier is its admitted failure to prevent juvenile Asian carp less than three inches long from passing through to its upstream side. According to Mr. Shea, longer fish are "more readily deterred than shorter fish." (Shea Dec, ¶ 9.) While Shea asserts that testing on fish 5.4 inches to 11 inches long did suggest that these fish were prevented from passing over a bench model of an electric field, (Shea Dec, ¶ 10) testing on fish two to three inches led to the observation that "some fish challenged the barrier repeatedly, even immediately after recovering from being immobilized in a previous attempt, and some fish were able to pass through the electrified area." (Shea Dec, ¶ 14.) The report

recommended that higher operating parameters than those currently in use be employed in the hope that smaller fish would be immobilized.⁸ (Shea Dec, ¶ 14.) This of course cannot be done without increasing the safety risks discussed above.

Environmental factors. According to Shea, the barriers are designed to operate under "typical environmental conditions." (Shea Dec, ¶ 24.) This was echoed by Colonel Quarles who stated:

Occasionally, there are short-term extreme variations in environmental conditions, such as peaks in water temperature during the summer months, or peaks in water conductivity when road salts wash into the canal during winter thaws. These events place added stress on the barrier electronics and cooling systems. While the Corps can maintain barrier operation during these events, it may not be possible to operate at high voltages, pulse rates, or pulse durations until the environmental conditions return to more typical levels. Based on historical data, the Corps has estimated that water conductivity will impede barrier optimal operating parameters for approximately 200 hours per year." (Quarles Dec, ¶ 36.)

The periods of high conductivity are significant because, in addition to putting stress on the barrier systems, they make the electric barrier less effective in deterring the migration of fish.⁹ (Quarles Dec, ¶ 31.)

Shadow effect. Another limitation on the effectiveness of the barrier is caused by the passage of steel-hulled boats through the electrified waters. This was acknowledged by Duane Chapman in his declaration. (Chapman Dec, ¶ 30.) This effect is explained in a report of a study commissioned by the U.S. Fish and Wildlife Service (USFWS).¹⁰ According to the 2005 report, a steel-hulled boat "warps" the electric field such that its deterrent effect can be significantly lessened, or even eliminated when a fish is swimming alongside or to the rear of a steel-hulled

⁸ It is not clear why fish between three inches and 5.4 inches were not subjected to testing, and it is possible that these larger fish would also be able to pass through the barrier.

⁹ Colonel Quarles notes that these periods of high conductivity typically occur during winter months (due to road salt washing into the canal) when carp migration is reduced.

¹⁰ http://www.fws.gov/midwest/fisheries/30-Potentialimpactofsteel-hulledbargesonmovementoffishacrossanelectricbarrier/Impact_of_steel-hulled_barges.pdf.

barge. (USFWS report, p 7.) While the study suggested that modifications to the electric barrier could improve its performance, and apparently some changes have been incorporated in Barrier IIA, there is no indication on either the Corps' or the USFWS's web pages that such studies have been conducted. Until such testing is completed – and Plaintiffs suspect that the testing will not be completed until Barrier IIB is fully operational which could be years away¹¹ – there is no proof that Asian carp are not bypassing the electric barrier in the shadow of the steel barges that constantly pass through the barrier.

(c) There is a real concern that the barrier will not be sustainable.

The Corps has taken steps to ensure that operation of the electric barrier does not now present an unacceptable public safety and health risk. It has attempted to balance that risk with the need to operate the barrier at higher voltage levels and pulse rates to increase its effectiveness at preventing Asian carp from entering the Great Lakes. There is some concern that, despite the precautions taken by the Corps, there will be an accident or injury caused by the electric barrier and it will be shut down in response. Should this occur, there would be no barrier whatsoever between the Asian carp and the Great Lakes which would then move unimpeded through the CAWS and into Lake Michigan.

In sum, there is no dispute that the electric barrier: 1) is an unproven, experimental, immensely complex system that the Corps does not know how to operate in the most efficient manner 2) cannot be operated at voltage levels and pulse rates that would be the most effective at deterring Asian carp because it would be unsafe to operate the barrier at these levels, and because there are periods of time – 200 hours a year – when water conductivity levels are so high

¹¹ Construction of barrier IIB is not yet completed, though its completion is predicted before the end of the year. However, if the experience with barrier IIA is any guide – it took approximately three years from completion to operation (see Quarles Dec, ¶ 21) – barrier IIB and any further testing of the shadow effect, could be some time down the road.

that it is impossible to maintain such operational levels and 3) even when the barrier is operated at normal levels, some Asian carp may be able to pass through the barrier in the shadow of a steel-hulled barge.

3. Netting, electrofishing and poisoning of Asian carp will not prevent them from entering the Great Lakes.

While the Corps states that the electric barrier is its principal means for deterring Asian carp from entering the Great Lakes, it also relies to some extent on traditional methods for controlling fish populations including netting, electrofishing and poisoning for the purposes of locating and eradicating the carp. Plaintiffs support the use of these methods as a supplement to physical barriers. (Newcomb Aff, ¶ 47.) However, there can be no serious dispute that these traditional methods cannot eradicate all or even most of a population of any specific fish species, particularly in a large, open-ended waterway such as the CAWS. As noted by Dr. Lodge:

[T]raditional tools for sampling fishes, while very useful for studying abundant species, are poor at detecting species that are not abundant (Magnuson *et al.* 1994, Fischer *et al.* 2009). By traditional tools, we mean primarily netting, electrofishing (stunning fish with an electric current emanating from a specially designed boat), and poisoning (using the toxin rotenone). . . We have extensive experience with all of these traditional tools, and know that they capture only a very small proportion of individuals comprising a local population of a fish species. (Lodge Dec, ¶¶ 6-7.)

This limitation inherent in the use of traditional control methods is even more significant with regard to Asian carp. As noted by Duane Chapman in his Declaration:

[Asian carp] are also more net-averse than most native fishes. When at low densities, adult Asian carps are amazingly difficult to capture with any standard fisheries technique. Because of these characteristics, small populations can exist without detection. (Chapman Dec, ¶ 24.)

Dr. Lodge agrees: "The generally low sensitivity of traditional tools is further compounded for both silver and bighead carps: they are more difficult than most fishes to capture." (Lodge Dec, ¶ 8.)

It is thus very unlikely that Asian carp that pass through or evade the electric barrier will be eradicated by traditional control techniques. As a result, if the Defendants continue to refuse to implement the relief requested by Plaintiffs in this action, the sole instrument for stopping the carp will be the electric barrier. Given its evident failure to prevent all Asian carp from entering the Great Lakes, its unproven and experimental status and the questions regarding its sustainability, it is imperative that the Court enter a preliminary injunction requiring the Corps to maintain physical barriers and take the other measures to prevent migration of Asian carp as detailed in Plaintiffs' request for relief.

B. The injury is both imminent and likely irreparable.

The eDNA data collected and analyzed for the Corps indicates that multiple live bighead and silver carp were present in the CAWS, past the Dispersal Barrier System, in late 2009 and early 2010.

- "Between November 2009 and July 2010, positive eDNA for both silver and bighead carp have been detected in several locations throughout the CAWS above the electric barriers . . . Several locations above the Barriers have had positive eDNA samples from multiple sampling trips." A total of 50 samples from above the Barriers have tested positive for longhead or silver carp. (Quarles Dec, ¶ 57.)
- Dr. David Lodge, whose laboratory collected and analyzed the samples has explained that based upon the care with which the samples were taken and processed and the confidence expressed in the laboratory's protocols by an independent laboratory audit team organized by the EPA, "there can be little, if any, doubt that the areas for which we have reported positive results . . . did indeed contain eDNA from the target species. (Lodge Dec ¶ 34.) Although he considered other possible explanations for the presence of eDNA in the water, he concluded "that by far the most plausible interpretation for the presence of the eDNA is that at least one live individual fish of a target species is present or has been present in the recent past [hours to at most two days] near the locks or upstream." (Lodge Dec, ¶ 35.)
- While the method used by Dr. Lodge does not determine the number of individual fish present where the sample was collected, Dr. Lodge explained, "the most informative statement we can confidently make is that a positive result indicates the presence of *at least* one live fish. The results could just as well indicate the presence

of tens or hundreds or more individual silver or bighead carp. (Lodge Dec, ¶ 37, emphasis added.)

- As noted above, Duane Chapman, the biologist upon whom the Corps principally relies in opposing Plaintiffs' Motion acknowledged: "Even before the bighead carp was captured in Lake Calumet, I was reasonably certain that some undetermined number of both bighead and silver carp were present above the barrier because of the eDNA data . . . I believe that collection of a positive eDNA sample is a good indicator of fish presence." (Chapman Dec, ¶26, emphasis added.)

Defendants have not disputed that even before that June 2010 capture of a live Asian carp above the barrier in Lake Calumet, scientific experts consulted by the Corps had concluded that there was an urgent need to reduce the likelihood of Asian carp entering Lake Michigan through the CAWS and that, with the routine operation of the Chicago and O'Brien locks, there is an "imminent threat" that Asian carp will establish a substantial population in Lake Michigan in the near future.

- Dr. Lodge's January 4, 2010 Declaration proffered by the United States in the Supreme Court concluded:

"[O]ur eDNA results indicate that at least a few individuals of both silver and bighead carp have ready access to Lake Michigan via the O'Brien Lock and Dam . . . Because the probability of invasion increases the more individual carp enter Lake Michigan, the theory of invasion biology . . . and rich experiences of managing invasions . . . indicate clearly that there remains an urgent need to reduce the probability that both silver or bighead carp individuals can enter Lake Michigan." (Lodge Dec, ¶ 49.)

- A majority (63%) of the scientists in the expert Risk Assessment panel convened by the USFWS for the Corps in February 2010 who responded to the question: "Is there an imminent threat that Asian carp (silver and bighead) will establish in Lake Michigan in the near future" answered "yes", with varying degrees of uncertainty (Darcy Dec, Ex. 2, Appendix D, Table 4, p 19) and a majority rated the risk of Asian carp establishment as "unacceptable" [Medium to High] under a "no-action" scenario where routine operation of the locks continued. (*Id.*, pp 3, 9.)

The subsequent capture of a live Asian carp in the CAWS above (lakeward) of both the electric barrier *and* the O'Brien Lock further underscores the imminent nature of the threat.

(Newcomb Aff, ¶¶ 45-47.) Contrary to the Corps' suggestion, the Plaintiffs have not asserted that that single fish "equate[s] to a sustainable population of fish above the electric barrier."

(Corps, p 38.) Rather, Plaintiffs contend that the capture of that fish viewed in conjunction with other information regarding the biology of Asian carp, the history of Asian carp in the connected Illinois waterways, and the pattern of the eDNA evidence, demonstrates the probability that additional Asian carp will enter Lake Michigan, leading to establishment of a reproducing population there. (Newcomb Aff, ¶ 47; 2nd Newcomb Aff, ¶ 18.) While Defendants correctly note that the geographic origins of the particular fish captured on June 22nd, and the means by which it entered Lake Calumet, have not been determined (2nd Newcomb Aff, ¶ 17; Chapman Dec, ¶ 28), the suggestion that it may have been carried to the site in a bait bucket or have been released there by a third party (Chapman Dec, ¶¶ 29-32 and Rogner Dec, ¶¶ 25-27) is simply unfounded speculation.¹²

Defendants contentions that there is no imminent risk of harm to Lake Michigan are not persuasive. First, contrary to the Defendants' suggestions, the Plaintiffs do not claim and need not show that a reproducing population of Asian carp is likely to be established in the CAWS

¹² The fish in question was later transported to researchers at Southern Illinois University for analysis (Quarles ¶ 61.) On August 5, 2010, the IDNR issued a press release announcing the completion of the study, which included chemical analysis of markers on the fish's inner ear bones or otoliths and an attempt to compare them with chemical characteristics of various water bodies in order to draw inferences about where the fish was at various life stages. Available at: <http://asiancarp.org/Wordpress/news/tsting-complete-on-bighead-asian-carp-found-in-lake-calumet-2/>. Notwithstanding the admittedly inconclusive nature of the analysis, Mr. Rogner publicly asserted that the report "does suggest that the fish . . . may have been put there by humans, perhaps as a ritual cultural release or through bait bucket transfer" (*Id.*) Predictably, given Mr. Rogner's "spin", some media outlets widely but inaccurately reported the study as evidence that the fish in question had been "planted". See, e.g., <http://abcnews.go.com/print?id=11333152>. However, as evidenced by the text of the report itself, a copy of which is appended to the Second Affidavit of Tammy Newcomb filed with this Reply, the report said nothing whatsoever about the possibility conjectured by Mr. Rogner and explicitly stated that "no conclusive statements regarding the environmental history of [the] fish is currently possible."

itself, or in that portion of the CAWS that is above the electrical barrier (District, pp 31 - 32; Corps, p 48). Instead, the real issue is the risk that such a population will be established in Lake Michigan or other connected waters. More specifically, given their mobility, and the current open condition of the CAWS, Asian carp need not spawn and reproduce in that part of the CAWS itself in order to enter and become established in the Lake.

Second, the Corps' reliance upon Mr. Chapman's opinions for the proposition that "a preliminary injunction need not issue based on imminence" (Corps, p 38) is misplaced. At one point, Mr. Chapman appears to focus on the question of the likelihood that the fish currently above the barrier in the CAWS will create a reproducing population:

[N]either the results of fishing or of eDNA can be used at this time to devine any estimate of the population of Asian carp in the CAWS above the electric barrier. It is likely that we did not capture all the bighead and silver carp from the CAWS or Lake Michigan. Thus, there is a chance that *the fish that are there* could create a substantial population. However, I believe, based upon the apparent (but not assured) failure of a few bighead carp to establish a population in Lake Erie, and the apparent (but not assured) low number of Asian carps in the CAWS, the chance that *currently resident* Asian carp will create a population is quite low. (Chapman Dec, ¶ 26, emphasis added.)

With all due respect to Mr. Chapman, his narrow focus on only these fish currently above the barrier and his analogy to the apparent lack of reproductive success among the few, isolated Asian carp in Lake Erie is flawed. Given the still experimental, unproven, and potentially unsustainable nature of the barrier, as well as its past operational history, it is unreasonable to assume, as Mr. Chapman apparently does, that the barrier will be fully effective in precluding the passage of other Asian carp into the CAWS. Moreover, while the precise origin of the Asian carp rarely observed in Lake Erie remain uncertain, it is believed they may be the product of

isolated human releases.¹³ In any event, Mr. Chapman does not cite any evidence that there has been or now exists an open waterway directly connected to Lake Erie with large and expanding Asian carp populations, like those that exist in the Illinois river system directly connected to the CAWS.

Ultimately, the United States temporal argument appears to rely upon Mr. Chapman's opinion that if Asian carp do invade the Lakes, "it will probably take many years for the population to become *problematic*" (§ 22, emphasis added) and that "an Asian carp *population expansion* to numbers that would cause widespread substantial economic and environmental damage is most likely to take at least one to three decades." (§ 23, emphasis added).

Such reasoning entirely misses the mark with respect to the nature of injury that Plaintiffs seek to avoid and conflates the question of when an injury is likely to occur with when the full extent of the ultimate damage will become apparent. As the United States has previously acknowledged, the harm that must be avoided is "allowing a *reproducing population* of Asian carp to establish itself in Lake Michigan" (US Mem S. Ct. I p 43). Once that condition arises, a "likely . . . irreparable injury" (US Mem S. Ct. II, p 47) will have occurred, regardless of how many years it takes for the established population to expand to the extent that the ultimate havoc to the Great Lakes ecosystem is fully manifested.

While emphasizing Mr. Chapman's belief that "widespread substantial economic and environmental damage" may take years to materialize, the Corps tellingly ignores Mr. Chapman's immediately following acknowledgment that we may nonetheless be at a "critical juncture" and that:

¹³ "Asian Carp Monitoring," available from the USFWS at <http://www.fws.gov/northeast/lowergreatlakes/Programs/ans/Projects/AsianCarpMon.html>.

This *possible pattern* of invasion provides both opportunities *and problems*. If Asian carps are able to establish in the Great Lakes, *we may* have some time to devise control methods that would prevent their eventual population expansion.

* * *

[S]mall populations [of Asian carps] can exist without detection. *Small numbers of fish could expand over very large distances in the Great Lakes, before conditions that precipitate a large population increase are encountered by the fish.* However, *it is important to remember in the coming years that failure of Asian carps to cause undesirable effects in the Great Lakes over the short term does not mean that undesirable effects have been avoided.*

Also, there is no guarantee that many bighead and silver carp have not moved completely through the CAWS and into Lake Michigan already. We have no way to assess the presence of bighead and silver carp in a body of water like Lake Michigan. *Even if there were hundreds of fish in the lake, catching one would be unlikely.* Furthermore, although risk of establishment is low if the number of fish is low, and *risk increases with an increasing number of fish*, if there are a male and a female bighead carp in Lake Michigan, the risk of establishment is not zero. (Chapman Dec, ¶¶ 24-25.)

Notably, Mr. Chapman does not identify the "control methods that would prevent their eventual population expansion" that he speculates "*we may* have some time to devise" (¶ 24, emphasis added). Similarly, there is virtually no explanation or documentation of his later assertions that "there are things that we *might* do to control Asian carp in the Great Lakes, and even if conditions exist such that Asian carps have the capacity to reach large populations, we *may* be able to control them – but it would not be free or easy, and *might not be successful*" (¶ 29, emphasis added).

Mr. Chapman's claims regarding such "control measures" are not merely undocumented and speculative, they are frankly implausible. To begin with, the history of the expansion of Asian carp in the Mississippi River basin including the Illinois River, to numbers that are evidently unmanageable, inspires little confidence that effective control measures for these species exist or are likely to be developed. Moreover, given the apparent impossibility of controlling or substantially reducing Asian carp populations in those river systems, it seems less

likely that some control method will be successfully applied in the vastly larger and more ecologically complex environment of the Great Lakes. Indeed, as noted above, Mr. Chapman himself has acknowledged, even assessing the presence of Asian carp in a body of water like Lake Michigan is now extremely difficult. (Chapman Dec, ¶ 25.) In sum, the possibility of some future technological development does not show that harm of an established, reproducing population of Asian carp in Lake Michigan can or will be remedied.

Even assuming that, as Mr. Chapman opines, it may take years for an Asian carp population in the Great Lakes to become "problematic[,] *[t]his does not mean that we are not currently at a critical juncture.*" (Chapman Dec, ¶ 22, emphasis added.)

Indeed. And, "[t]he best understanding of the current situation is that minimizing the number of invading individuals will minimize the chance of establishment of Asian carps." (Chapman Dec, ¶ 13.) That is precisely why the preliminary injunction sought by Plaintiffs is urgently needed.

II. The balance of equities favors Plaintiffs and the requested injunction is in the public interest.

Contrary to the assertions by the United States, the District and the City of Chicago, the balance of the equities favors Plaintiffs and the requested injunction would be consistent with the public interest. Of particular importance, the relief sought by Plaintiffs would be consistent with the protection of public health and safety.

A. Public Health and Safety.

1. Use of sluice gates for discretionary diversion of water from Lake Michigan into the CAWS.

Defendants and the City of Chicago have opposed one part of the preliminary injunction initially proposed by Plaintiffs – temporary closure of sluice gates at the Chicago River Controlling Works and the O'Brien Lock and Dam, on the grounds that it would preclude the use

of those sluice gates for routine "discretionary diversion" of Lake Michigan water into the CAWS.¹⁴ The District, (pp 35-37) and the City (pp 9-10) each argue at length that continued routine use of at least some of the sluice gates for discretionary diversion of Lake Michigan water into the CAWS is needed to avoid stagnation of water, to dilute and disperse partially treated wastewater, to protect public health and to preserve public use and economic development projects adjacent to the CAWS. (District, pp 35 – 37, City, pp 9-10.)

Plaintiffs believe that their original request to close the sluice gates "except as needed to protect public health and safety" remains justified as a means of reducing the likelihood that Asian carp will enter Lake Michigan through those gates, and that it could reasonably be understood to allow continued diversion of Lake water through the sluice gates as needed to address the District and the City's health-related concerns. Nonetheless, upon further consideration of the District's and the City's more generally stated concerns regarding the importance of continued discretionary diversion, and in an effort to balance those concerns with the Plaintiffs' interests in reducing the risk that Asian carp will migrate through the sluice gates when opened, Plaintiffs are in this Reply, modifying their request for injunctive relief as follows: Plaintiffs are eliminating the request that the Court require Defendants to temporarily close all sluice gates, provided that Defendants install and continuously maintain in all sluice gates, including those normally used only for flood control, screens or bar grates that restrict the passage of fish to at least the same extent as those proposed and authorized by the Corps in the

¹⁴ As explained by the District (Lanyon Aff, ¶¶ 29-30), some discretionary diversion can be accomplished by using pumps at the Wilmette Pumping Station rather than sluice gates.

Interim III Report, together with automatic rakes or other similar equipment that removes debris and prevents the screens from clogging.¹⁵

With this modification, the Plaintiffs' proposed injunction would not prevent the District from continuing routine discretionary diversion through sluice gates. Accordingly, the District's and the City's stated concerns in that regard are moot.

2. Use of sluice gates for flood control.

The purpose of the Plaintiffs' Motion for Preliminary Injunction is to minimize the risk of additional Asian carp entering Lake Michigan via the CAWS. One potential means of fish passage through the CAWS and into Lake Michigan is through open sluice gates in the Chicago Lock, the Wilmette Pumping Station, and the O'Brien Lock and Dam. The installation of screens in the open sluice gates would reduce the risk of adult and some juvenile Asian carp passing through and entering Lake Michigan. (Ex 12, p 45.)

To its credit, the District has installed screens in some of the sluice gates it controls. However, it has done so with the caveats that screens will not be installed in the remaining sluice gates, and that the screens that have been installed will be removed in certain high water events to prevent potential flooding. (Ex 32.) Similarly, the Corps has proposed to install screens in some sluice gates, but has not committed to installing them in all the gates, nor to keeping them in place whenever the gates are opened. (Ex 12, pp 45-47, 58.)

The primary reason the Defendants cite for their refusal to place and maintain screens in all of the sluice gates is the concern that, during the flood events, the screens could become clogged with debris. (District, p 37; Corps, pp 41-42.) Defendants have expressed concerns that, were the screens to become completely clogged with debris, it could prevent water from passing

¹⁵ As discussed in § II A.2 below, such automatic rakes are commercially available and used to prevent clogging of screens in other water control structures, so they can continue to pass water, even under flood conditions.

through the open sluice gates, specifically during certain "reverse flow" conditions when water is diverted from the CAWS into Lake Michigan, and cause flooding. (Ex 32; Ex 12, p 45.)

However, this argument is unpersuasive because, among other reasons, there exists commercially available technology specifically designed to prevent sluice gate screens from becoming clogged with debris. (Someah Dec, p 3.)

Automatic raking machines are devices designed to clear debris from the screens in sluice gates. (Someah Dec, p. 3.) Automatic raking machines are commonly installed above sluice gate screens and can detect, by measuring the pressure behind the screens or the water level across the screens, when the screens have become clogged with debris. (Someah Dec, p 4.) The automatic raking machine then activates and removes the debris from the screen. (Someah Dec, p 4.) Automatic raking machines are commercially available in the United States, and are used to manage water intake for a variety of industries and in various kinds of water control structures, including some owned and operated by the Corps itself. (Someah Dec, pp 2-3.) Automatic raking machines are specifically used in flood control structures, and work to keep screens free of debris even in flood conditions. (Someah Dec, p 3.)

The only reason set forth by Defendants for not installing and maintaining screens in all sluice gates any time they are open is the potential for the screens to become clogged with debris. But installing automatic raking machines or similar devices above the screens would allow the Defendants to prevent the problems associated with clogged screens while substantially reducing the risk of adult Asian carp passing through the sluice gates whenever they are opened. Installing this equipment is a small price to pay to achieve the stated goal of all the parties.

3. Use of Locks for flood control.

In order to substantially reduce the likelihood that additional Asian carp will migrate through the CAWS into Lake Michigan, Plaintiffs' requested preliminary injunction would,

among other things, require the Corps to temporarily close the Chicago and O'Brien Locks "except as needed to protect public health and safety." Thus, while it is undisputed that sluice gates, not locks are the primary flood control mechanism in the CAWS, and the Chicago and O'Brien Locks are only infrequently opened for flood control purposes (only five times at the Chicago Lock since 1986 and only two times at O'Brien since 1986 (Su Dec, ¶¶ 11-12), Plaintiffs recognize that those locks must occasionally be opened to prevent flooding, and therefore have not sought and do not seek to prohibit lock openings under those circumstances.

It is likewise undisputed that the Corps of Engineers has already independently decided to close the Chicago Lock for six months, between November 2010 and April 2011 while the locks are repaired and the lock gates are replaced. (Abou-El-Seoud Dec, ¶¶ 2-5.) During those repairs, the Corps plans to install watertight bulkheads, and to maintain a crane on site that can, if necessary, temporarily remove the bulkheads if needed to prevent flooding. (Abou-El-Seoud Dec, ¶¶ 2-5.) Consistent with their previously stated position, Plaintiffs do not, of course, seek to enjoin the removal of the bulkheads as needed to prevent flooding or otherwise protect public health and safety.

The Corps asserts that because of the advanced age and deteriorated condition of the O'Brien Lock gates and associated gate control mechanisms, it must be allowed to regularly open or "cycle" the gates, especially during cold weather conditions, in order to keep the O'Brien Lock gates in working order. (Corps, p 41.) Thus, the Corps argues, if the locks are closed for an extended period, they will cease to function, precluding their opening even for flood control. (*Id.*)

Assuming that those assertions regarding the decrepit conditions of the O'Brien Lock equipment are correct, it appears that its reliability is already questionable for reasons wholly

independent of the present controversy and that extensive repairs and replacement of portions of the lock infrastructure like those planned for the Chicago Lock may be needed in the near future, presumably necessitating a similar, extended closure. In any event, regardless of whether such repair or replacement is soon undertaken, the Corps could, as an alternative to the closure of the O'Brien Lock gates requested by Plaintiffs, employ a procedure similar to that already planned for the Chicago Lock. That is, the Corps could obtain and install one or more bulkheads at the O'Brien Lock that would control water movement and impede fish passage, but could still be removed by a crane if needed to prevent flooding. (Cox Dec, ¶ 4, p 6.)

Finally, the Corps' suggestion that because Plaintiffs' proposed injunction would allow both the sluice gates and the locks to be operated to prevent flooding, it is "unlikely to add any value" to "ongoing efforts" to prevent the establishment of Asian carp populations (Corps, pp 48-49) is patently without merit. First, it ignores the fact that the sluice gates are the primary flood control mechanism and that under Plaintiffs' proposed injunction, each of them would be continuously fitted with screens to block the passage of most fish into the Lake. Second, the locks are not, in fact, "regularly" (Corps, p 48) operated for flood control purposes. As noted above, the O'Brien Locks are rarely operated for that purpose.

4. Impact of block nets or similar interim physical barriers.

Plaintiffs' Motion also seeks to require the Corps to install interim physical barriers such as block nets to impede the movement of Asian carp through channels of the CAWS where no physical barrier currently exists, such as the Little Calumet River. As with all other aspects of Plaintiffs' requested injunctive relief, it is expressly limited to measures "consistent with the protection of public health and safety."

While block nets are not necessarily an ideal or permanent solution to the problem, Plaintiffs proposed them specifically because, as fixed nets, they block the movement of most

fish, but still allow water to flow through them. Accordingly, they are far less likely to contribute to flooding than fixed, impermeable structures. Notwithstanding that indisputable fact, the Corps has nevertheless summarily rejected their use on the grounds that they could still cause flooding if they become blocked with debris and may be difficult to keep anchored to the bottom of the river under all flow conditions, and would impede navigation. (Quarles Dec, ¶¶ 120-121.)

But the Corps has not shown that any of these objections need actually preclude the installation and number of such block nets as a means of impeding Asian carp migration. For example, multiple parallel nets could be installed, so that if one were to become blocked, or dislodged by the current, it could be removed while another would remain as an effective barrier pending further maintenance or repair as needed. Similarly, the Corps apparent assumption that a block net would necessarily be installed at the mouth of the Calumet River and thereby disrupt navigation (¶ 121) is unfounded. There is no apparent reason why block nets could not be installed at other locations in the Little Calumet River where little or no commercial navigation exists.¹⁶

5. Impact on Chicago Police and Fire Departments and Coast Guard Operations.

The City and the Corps contend that the locks cannot be closed because they are used by both City police and fire boats and Coast Guard vessels for rescue and security operations. While Plaintiffs appreciate the seriousness of such concerns, it is apparent that they can be addressed by thoughtful planning and perhaps the duplication of some assets. As noted in Plaintiffs' initial brief, the proof of this assertion is that the Chicago locks will be closed for six straight months starting in November of this year. This is acknowledged by the Corps in its

¹⁶ Installation of block nets in the Calumet River, would obviously raise more substantial issues of impacting navigation.

brief. (Corps, p 44, fn 14.) While the Corps claims that this planned closure does not provide support for Plaintiffs' request for relief, Plaintiffs believe that if plans can be developed to address all the police, fire and Coast Guard concerns described by the Defendants just so the lock can be closed to permit it to be repaired, there is no reason to believe that comparable plans cannot be developed to close the locks to assure that the Great Lakes ecosystem is not seriously harmed by an invasion of Asian carp. It may be inconvenient and may entail some expense to prepare and implement such plans, but the balance of harms tips decidedly in Plaintiffs' favor viewed in light of the potential environmental and economic disaster that looms over the Great Lakes region.

The City does not even address the planned lock closure in its brief, and instead presents arguments that suggest that no lock closure of any duration is reasonable. The Corps on the other hand merely contends that the six month closure is not comparable to the relief requested by Plaintiffs because the planned closure will occur in the "winter" season when boat traffic is slower through the lock. Even if this is true, it does not explain the obvious impact that lock closure will have on the police and fire activities described by Defendants as critical to public health and safety. These needs will certainly continue through the winter season, regardless of whether there is a high level of traffic in the waterway. Yet, the Defendants have undoubtedly devised a way to meet these critical needs for six straight months with the lock closed. They do not share what their strategy or plan is, but given the gravity of the harm caused by leaving the locks open to the migration of Asian carp, it would not be unreasonable to use this plan as the springboard for adapting to an extended closure of the locks. As the Corps notes in its brief, the community has known about the closure for a long time, so presumably preparations have been made. This suggests that it would not be out of the question to accelerate the implementation of

this closure. Once the lock is closed and the closure plan is in place, the City and the Coast Guard would have those months to develop a further plan to continue the closure through the summer season. Neither the City nor the Defendants have offered a specific reason why this isn't a reasonable approach to this issue.

Likewise, if there is a plan for providing emergency service while the Chicago Lock is closed, there is no good reason why a similar plan could not be adopted for the O'Brien Lock. While the Coast Guard does have a station near there, it appears that the same is not true for the City police and fire departments. Apparently the Coast Guard has a strategy for responding to emergencies and carrying out all of its security functions in the Chicago River even when that lock is closed. (Barndt Dec, ¶ 50.) Employing a similar strategy in the waterways south of the O'Brien Lock thus seems feasible. Alternatively, the Coast Guard could maintain a second dock south of the O'Brien lock so it can moor a second vessel there to respond to situations below the lock. While the Corps asserts that the Coast Guard doesn't have the funds to pursue such a course, this is just a matter of money. Given the promise of federal funds to address the invasion of Asian carp (Bolen Dec, Attachment 1), it would seem possible for the Coast Guard to find a funding source for these increased costs.¹⁷ (Barndt Dec, ¶ 45)

B. Transportation and economic impacts.

As demonstrated in Plaintiffs' initial brief, the permanent ecological and economic harm likely to result from the establishment of Asian carp in the Great Lakes ecosystem is likely to exceed by an order of magnitude the temporary economic impacts of the injunctive relief

¹⁷ In her Declaration Ms. Barndt asserts that it would cost the Coast Guard "twenty to thirty million dollars" to operate another station. This seems unlikely. The Coast Guard already operates a "temporary" station in the Chicago River during the summer months, presumably for considerably less than \$20-30 million. It would seem that a similar station could be operated on a permanent basis south of the O'Brien Lock for considerably less than the amount estimated by Ms. Barndt.

requested by Plaintiffs, including the effects on navigation in the vicinity of the Chicago and O'Brien Locks. In response, the Corps, primarily through the Declaration of Corps economist Rebecca J. Moyer, has criticized the analysis and conclusion presented by Dr. John Taylor in his Affidavit and Report.

Dr. Taylor has prepared a Second Affidavit, filed with this Reply, that addresses key issues raised by the Corps and explains why he adheres to his previously stated conclusions.

Among other things, Dr. Taylor notes:

- His estimate of \$64-69 million per year in additional logistics and transportation related cost impacts to shippers if the Chicago and O'Brien Locks are closed is far closer to the \$89 million estimate of such impacts independently prepared by Dr. Joseph Schwieterman for the Illinois Chamber of Commerce (that was not even addressed by Ms. Moyer) than the Corps' varying estimates of \$150 to \$192 million. (Taylor 2nd Aff, ¶¶ 4.a. – 4.b.)
- With respect to one of the key disagreements between the Corps and Dr. Taylor – the Corps' assumption that goods that cannot complete an entire trip by barge would have to shift to an alternative mode of transportation such as rail or truck for the entire length of the trip – Dr. Ian Savage, whose critique of some other aspects of Dr. Taylor's analysis was relied upon by Ms. Moyer, agreed with Dr. Taylor that such an assumption was "very pessimistic." (Taylor 2nd Aff, ¶ 4.a.)
- Some of Ms. Moyer's other assertions and assumptions regarding certain transportation costs and limitations on other transportation options available to shippers were unrealistic (Taylor 2nd Aff, ¶ 5) and/or lacking in supporting detail and documentation. (Taylor 2nd Aff, ¶¶ 6, 8.)

- He reaffirms his previously stated conclusions regarding estimated transportation related impacts and that such impacts would be relatively modest in the context of the Chicago area economy. (Taylor 2nd Aff, ¶ 12.)

III. Plaintiffs are likely to succeed on the merits of their claims.

Defendants and the City have challenged the Plaintiffs' likelihood of success on the merits in several respects, but none of their arguments are well taken.

A. Plaintiffs' public nuisance claim seeks prospective equitable relief only and therefore comes within the APA § 702 waiver of sovereign immunity.

The Corps' assertion that Plaintiffs' request for equitable relief under the common law nuisance doctrine is barred by sovereign immunity (Corps, pp 20-22) is without merit. Under § 702 of the Administrative Procedures Act (APA), a person suffering a legal wrong because of an agency's action (or inaction) is entitled to judicial review by a federal court. provided the lawsuit seeks "relief other than money damages."¹⁸

As the Seventh Circuit has recognized, in § 702 Congress "waived sovereign immunity for most forms of prospective relief."¹⁹ This waiver was added to § 702 through a 1976 amendment that, according to the legislative history, was meant to eliminate the sovereign immunity defense "in *all* equitable actions for specific relief against a Federal agency."²⁰ Several Circuits have reached the same conclusion about the breadth of the § 702 waiver.²¹

¹⁸ 5 U.S. C. § 702; see also *The Presbyterian Church (U.S.A.) v. United States*, 870 F.2d 518, 525 (9th Cir. 1989) (under § 702 "an action for nonmonetary relief challenging an agency for 'acting or failing to act' shall not be barred by sovereign immunity").

¹⁹ *Blagojevich v. Gates*, 519 F.3d 370, 371 (7th Cir. 2008).

²⁰ *Trudeau v. Federal Trade Comm*, 456 F.3d 178, 186 (D.C. Cir. 2006), quoting S. Rep. No. 94-996, at 8 (1976) and H.R. Rep. No. 94-1656, at 9 (1976) (emphasis in original).

²¹ *Raz v. Lee*, 343 F.3d 936, 938 (8th Cir. 2003) (§ 702 "expressly waives sovereign immunity as to any action for nonmonetary relief brought against the United States"); *United States v. City of Detroit*, 329 F.3d 515, 520 (6th Cir. 2003) (*en banc*) (under § 702 of the APA the government "has waived its immunity with respect to non-monetary claims"); *Presbyterian Church*, 870 F.2d

This waiver, moreover, goes beyond matters reviewable through the APA: § 702 is "a law of general application."²² The waiver also goes beyond any particular statute, reaching any civil matter arising under the "laws" of the United States.²³ As the *Trudeau* court concluded, "we hold that APA § 702's waiver of sovereign immunity permits not only Trudeau's APA cause of action, but his nonstatutory and First Amendment actions as well."²⁴ The "laws" of the United States, of course, include the federal common law of public nuisance.²⁵ So Plaintiffs' common law claim, which seeks non-monetary relief to abate a public nuisance, comes squarely within the § 702 waiver of sovereign immunity.

The § 702 waiver, moreover, applies unless there is another statute "expressly displacing" it.²⁶ The Corps argues that Plaintiffs' public nuisance claim "is properly brought as a tort," although conceding that it is "not styled . . . as such," and maintains that as a tort it must be brought under the Federal Tort Claims Act (FTCA). (Corps, p 20.) This argument is wrong for two reasons.

First, the scope of the APA § 702 waiver depends on the nature of the relief sought, not the kind of claim made. Section 702 encompasses any action "seeking *relief* other than money damages," but it does not confer "authority to grant *relief* if any other statute that grants consent

at 525 ("the 1976 amendment to § 702 waives sovereign immunity in all actions seeking relief from official misconduct except for money damages").

²² *Blagojevich*, 519 F.3d at 372; see also *City of Detroit*, 329 F.3d at 521 (noting that each of the five other circuits "that have addressed this issue agree that 'the waiver of sovereign immunity contained in § 702 is not limited to suits brought under the APA'").

²³ *Trudeau*, 456 F.3d at 185, quoting 28 U.S.C. § 1331.

²⁴ *Trudeau*, 456 F.3d at 187.

²⁵ *Illinois v. City of Milwaukee*, 406 U.S. 91, 99-100 (1972) (applying 28 U.S.C. § 1331). Comprehensive amendments to the Federal Water Pollution Control Act (FWCPA) preempted the common law nuisance in the area of water pollution. *Middlesex Cty. Sewerage Auth. V. National Sea Clammers Ass'n.*, 453 U.S. 1, 21-22 (1981). No such comprehensive legislation exists with regard to the subject of Plaintiffs' suit.

²⁶ *Blagojevich*, 519 F.3d at 372.

to suit expressly or impliedly forbids the *relief* which is sought."²⁷ The Corps portrays this exception to § 702 as pertaining to "claims" and selectively quotes the statute in an effort to bolster its argument. (Corps, pp 22, 23.) But so long as the nature of the relief sought is equitable, the § 702 waiver applies, even though a claim for money damages might have been pleaded on the same facts.²⁸ So, for example, although Massachusetts might have sued the United States for damages over its failure to reimburse some Medicaid expenditures, it was not required to do so, particularly since a money judgment would not be an adequate substitute for prospective relief.²⁹

Second, a public nuisance claim has always been equitable in nature. In a case involving placement of fill in navigable waters, for example, the Supreme Court noted that "[a] public nuisance action was a classic example of the kind of suit that relied on the injunctive relief provided by courts in equity."³⁰ Even in 1887, when the U.S. Supreme Court decided *Mugler v. Kansas*,³¹ the "jurisdiction of courts of equity" over public nuisance cases was "of a very ancient date." The reason for this equity jurisdiction, the Court explained, was "the ability of courts to give a more speedy, effectual, and permanent remedy, than can be had at law."³² Significantly, too, courts of equity "cannot only prevent nuisances that are threatened, and before irreparable mischief ensues, but arrest or abate those in progress and, by perpetual injunction, protect the public against them in the future."³³

²⁷ 5 U.S.C. § 702 (emphasis added).

²⁸ *Bowen v. Massachusetts*, 487 U.S. 879, 893 (1988).

²⁹ *Bowen*, 487 U.S. at 904-905.

³⁰ *Tull v. United States*, 481 U.S. 412, 423 (1987).

³¹ *Mugler v. Kansas*, 123 U.S. 623, 672 (1887).

³² *Mugler*, 123 U.S. at 673.

³³ *Mugler*, 123 U.S. at 673; see also *In re Debs*, 158 U.S. 564, 592 (1895) ("in no well-considered case has the power of a court of equity to interfere by injunction in cases of public nuisance been denied").

When the U.S. Supreme Court agreed to consider an injunction against use of the Chicago Sanitary and Ship Canal to discharge sewage into the Mississippi River watershed, it recognized the "established principle that the court has jurisdiction in equity to restrain and prevent nuisances."³⁴ Equitable remedies are particularly fitting when a public nuisance threatens damage to a body of water, for legal or statutory proceedings cannot "be involved until a part of the mischief is done, and they could not, in the nature of things, restore the pond, the land and the underground currents to the same condition in which they now are."³⁵

The historic remedy for a public nuisance – and the one sought here – is prospective equitable relief, not damages. Moreover, none of the Corps' cited cases holds that the FTCA applies to a public nuisance claim; nor do any of them hold that an effort to enjoin a public nuisance falls outside the APA § 702 waiver.³⁶ *Spectrum Leasing*,³⁷ which the Corps also cites, confirms that courts look to the remedy sought to determine whether a case comes under the Tucker Act (for contracts) or § 702. If the plaintiff seeks declaratory or injunctive relief, rather

³⁴ *Missouri v. Illinois*, 180 U.S. 208, 244 (1901), quoting *Attorney General v. Jamaica Pond Aqueduct Corp*, 133 Mass. 361, 363 (1881).

³⁵ *Missouri v. Illinois*, 180 U.S. at 244, quoting *Jamaica Pond*, 133 Mass. At 363.

³⁶ In *Massachusetts v. United States Veterans Administration*, 541 F.2d 119, 123 (1st Cir. 1976), the court did not need to decide whether the federal common law of nuisance encompassed a water pollution claim because Massachusetts sought a monetary penalty. In *Kennedy v. City of New York*, 1986 U.S. Dist. LEXIS 26736, *5-6 (S.D.N.Y. 1986), the court granted summary judgment because statutes precluded a private action when the EPA had already brought an enforcement action. In dicta, the court noted that the plaintiffs' confusing claim against the EPA might include a theory of public nuisance. *Id.*, at *3-4. The court then stated that the United States had not consented to a public nuisance suit, but APA § 702 was not addressed either by the court or the pro se plaintiffs. *Id.*

³⁷ *Spectrum Leasing Corp. v. United States*, 764 F.2d 891, 895 (D.C. Cir. 1985).

than the contractual remedy of specific performance, courts have found the § 702 waiver to apply.³⁸

State attorneys general have historically sued in equity to abate public nuisances. "The judicial power to enjoin public nuisance at the instance of the Government has been a commonplace of jurisdiction in American judicial history."³⁹ They do so here. Because Plaintiffs seek "relief other than money damages" – in a type of case for which equitable relief is the norm – their public nuisance action comes squarely within the APA § 702 waiver of sovereign immunity.

B. The City's argument that this case presents a non-justiciable political question is without merit.

The City of stands alone in presenting the argument that the political question doctrine requires Plaintiffs' claims should be dismissed. The City's argument is without merit. The Supreme Court has explicitly rejected the political question defense in interstate nuisance actions such as the case at hand which presents none of the factors necessary for the case to be found nonjusticiable.

1. The political question doctrine does not bar federal common law cases.

The claims presented here are not barred by the political question doctrine. It is plainly not the case that a federal common law determination will constrain the powers of the other branches; Congress and the Executive can preempt federal common law principles.

³⁸ *Spectrum Leasing*, 764 F.2d at 894, citing *Megapulse, Inc. v. Lewis*, 672 F.2d 959 (D.C. Cir. 1982); see also *B.K. Instrument, Inc. v. United States*, 715 F.2d 713, 723 (2nd Cir. 1983) (§ 702 waiver applied to unsuccessful bidder's action for declaratory and injunctive relief).

³⁹ *United Steelworkers of Am. v. United States*, 361 U.S. 39, 61 (1959) (Frankfurter, J., concurring), citing *Attorney General v. Tudor Ice Co.*, 104 Mass. 239, 244 (1887); *Village of Pine City v. Munch*, 42 Minn. 342, 343; 44 N.W. 197 (1890); *Board of Health v. Vink*, 184 Mich. 688; 151 N.W. 672 (1915).

The political question doctrine is "a function of the separation of powers," *Baker v. Carr*, 369 U.S. 186, 210 (1962), designed to avoid "inappropriate interference" by the Judiciary in the business of the other branches, *United States v. Munoz-Flores*, 495 U.S. 385, 394 (1990) where that other branch is better suited to resolve the issue.⁴⁰

While "our constitutional system imposes upon the Branches a degree of overlapping responsibility, a duty of interdependence as well as independence the absence of which would preclude the establishment of a Nation capable of governing itself," separation of powers constraints operate to ensure that no action would "accrete to a single Branch powers more appropriately diffused among separate Branches or . . . undermine the authority and independence of one or another coordinate Branch."⁴¹

In a case such as this involving the obligations of domestic actors under federal common law, the political branches remain free to modify or displace any principles that the judiciary applies and to dictate that courts follow any standards they formulate. Consequently, there is no danger of the judiciary monopolizing powers that the Constitution "diffused among separate Branches," *id.*, or granted exclusively to one of the other branches. With no such danger, there is no call for the protections of the political question doctrine. Neither the Supreme Court nor the Seventh Circuit have ever found the political question doctrine to bar adjudication of a case arising solely under common law.⁴²

⁴⁰ *Connecticut v. American Elec. Power Co., Inc.*, 582 F.3d 309, 321 (2d Cir. 2009), petition for cert. filed, ** U.S.L.W. *** (U.S. August 2, 2010) (No. 10-**).

⁴¹ *Mistretta v. United States*, 488 U.S. 361, 381-82 (1989) (internal quotation marks and citations omitted).

⁴² There are a few nominally "common law" cases in which courts have found a political question. But the claims in these cases in fact turned upon questions of constitutional or international sovereign right, and it was the constitutional or international sovereign right issues, not the common law ones, that were the focus of political question concerns. See, e.g., *Luther v. Borden*, 48 U.S. (7 How.) 1 (1849) (trespass claim, depending on guarantee clause claim); *Commercial Trust Co. v. Miller*, 262 U.S. 51 (1923) (German citizen's property recovery claim, depending on whether Germany was still at war with the United States).

2. The Supreme Court already has explicitly rejected the political question defense in interstate nuisance and related cases.

Justiciability of this case is confirmed by the Supreme Court's repeated holdings that State claims for redress for injuries to their quasi-sovereign interests — including interstate pollution claims — are justiciable. In these cases, the Supreme Court has disposed of separation of powers concerns and, in particular, arguments about the inappropriateness of such disputes for judicial resolution.⁴³

Here Plaintiffs allege serious harm to their waters, water resources, aquatic environment, commercial and sport fishing industries threatened and contributed to by Defendants' actions and inactions. The City's claim that this case is not justiciable cannot be reconciled with the courts' longstanding role in adjudicating such controversies and explicit holdings that such controversies are justiciable.

3. This case does not implicate any of the *Baker v. Carr* factors.

In *Baker v. Carr* the Court set out six factors which may describe a political question.⁴⁴ The City asserts that factors two, three, four and six are applicable to the case at hand and require a finding of non-justiciability. This assertion has no merit.

a. This case will be decided under judicially manageable standards and does not require an initial policy determination for nonjudicial discretion.

The second and third factors are sometimes considered together to determine whether "judicially manageable standards" exist so as to ensure that an issue is appropriate for resolution

⁴³ See *Rhode Island v. Massachusetts*, 37 U.S. 657, 684 (1838) (holding that disputes among the states are inherently political, but not necessarily barred by the political question doctrine); *Ohio v. Wyandotte Chemicals Corp.*, 401 U.S. 493 (1971) (Court explicitly rejects bar of political question doctrine in interstate nuisance action).

⁴⁴ *Baker v. Carr*, 369 U.S. 186, 217 (1962).

by judicial method, that is, by principled adjudication, as opposed to "nonjudicial discretion."⁴⁵

These two factors pose no problem here. Courts regularly decide nuisance cases of all sorts and, as noted above, frequently have decided interstate nuisance cases involving injuries to State's quasi-sovereign interests. Principled, common law adjudication of such cases lies squarely within the judiciary's core competence. In pollution and other nuisance-type cases, courts examine the magnitude of the injury, issues of causation and contribution, and equitable factors.⁴⁶ These are judicially manageable and appropriate inquiries.

Nor is the potential complexity of the facts or societal significance of the remedies a bar. For example, in *Connecticut v. American Elec. Power Co., Inc.*, cited by the City in its brief at pp. 11-12, the Court there found that the federal common law nuisance case against the six top emitters of greenhouse gases contributing to global climate change triggered none of the six *Baker* political question factors. There the defendants argued that issues arising from greenhouse gas emissions were too complex and presented policy questions such that a court could not decide them.⁴⁷

Yet, the Court observed, "Defendants' argument is undermined by the fact that federal courts have successfully adjudicated complex common law public nuisance cases for over a century."⁴⁸ Surely, the complexities involved in a global climate change nuisance action are far more daunting than those attendant to an action to keep Asian carp from invading the Great Lakes. As in *AEP*, "Well-settled principles of tort and public nuisance law provide appropriate guidance to

⁴⁵ See *Goldwater v. Carter*, 444 U.S. 996, 998 (1979) (Powell, J., concurring) (the second and third *Baker* prongs ask whether "resolution of the question [would] demand that a court move beyond areas of judicial expertise").

⁴⁶ See, e.g., *Georgia v. Tennessee Copper Co.*, 240 U.S. 650, 650-51 (1916) (setting emissions limits and imposing monitoring requirements).

⁴⁷ *Connecticut v. American Elec. Power Co., Inc.*, 582 F.3d 309, 421 (2d Cir. 2009), citing *Baker v. Carr*, 369 U.S. at 217.

⁴⁸ 582 F.3d at 326.

the district court in assessing Plaintiffs' claims and the federal courts are competent to deal with these issues."⁴⁹

b. Adjudication of this action will neither show a lack of respect for coordinate branches of government nor present a potential for embarrassment from multifarious pronouncements by various departments in question.

Adjudication of this case does not implicate the fourth or sixth Baker factors. As to the fourth factor, adjudication of this matter expresses no "lack of respect" for the political branches. In cases involving alleged injuries to States' quasi-sovereign interests, the Supreme Court has often adjudicated questions of domestic, interstate responsibilities.

Finally, there is no danger of "embarrassment" from competing pronouncements. The political branches can readily incorporate, modify, or displace any principles applied in this and other common law cases. Moreover, the official U.S. position, as expressed in the laws cited by the City, is to reduce the risk of invasive species and Asian carp introduction into the Great Lakes. Resolution of the States' claim can cause no embarrassment. The City's claim should be rejected.

C. Plaintiffs are likely to succeed on the merits of their common law public nuisance claim.

In opposing Plaintiffs' Motion, the Defendants and the City argue that existing federal statutes displace Plaintiffs' federal common law nuisance action, and that Plaintiffs' claim conflicts with federal law and policy. (Corps' pp 23-25; District pp 24-29; City pp 13-14.) Their arguments are without merit.

⁴⁹ 582 F.3d at 329; see also, *Oneida Indian Nation of New York v. County of Oneida*, 719 F.2d 525, 539 (2d Cir. 1983) (internal quotation marks and citation omitted), *aff'd* in relevant part, 470 U.S. 226 (1985) (Second Circuit rejects argument that a Native American land claim poses a political question because a remedy would have "catastrophic ramifications;" the court noted that "'we know of no principle of law that would relate the availability of judicial relief inversely to the gravity of the wrong sought to be addressed.'")

1. Standards governing displacement.

Here, as in *Connecticut v. American Elec. Power Co., Inc.*, (*AEP*),⁵⁰ "Defendants allege that even if Plaintiffs can raise a federal common law nuisance claim, any such cause of action has been displaced by federal legislation. A cause of action has been displaced when 'federal statutory law governs a question previously the subject of federal common law.'"⁵¹ The displacement standards as they apply to water pollution nuisance cases are well-described by the Second Circuit in *AEP*:

Because "federal common law is subject to the paramount authority of Congress," federal courts may resort to it only "in absence of an applicable Act of Congress." *Milwaukee II*, 451 U.S. at 313-14, 101 S.Ct. 1784 (alteration and internal quotation marks omitted). Federal common law is a "necessary expedient" to which federal courts may turn when "compelled to consider federal questions which cannot be answered from federal statutes alone." *Id.* at 314, 101 S.Ct. 1784 (internal quotation marks omitted). But "when Congress addresses a question previously governed by a decision rested on federal common law the need for ... lawmaking by federal courts disappears." *Id.* "[T]he question [of] whether a previously available federal common-law action has been displaced by federal statutory law involves an assessment of the scope of the legislation and whether the scheme established by Congress addresses the problem formerly governed by federal common law." *Id.* at 315 n. 8, 101 S.Ct. 1784.⁵²

As these principles are applied, one should remain mindful that "[s]tatutes which invade the common law . . . are to be read with a presumption favoring the retention of long-established and familiar principles, except when a statutory purpose to the contrary is evident."⁵³ "[C]ourts

⁵⁰ *Connecticut v. American Elec. Power Co., Inc.*, 582 F.3d 309, 371 (2d Cir. 2009) (hereafter *AEP*), citing *Milwaukee v. Illinois*, 451 U.S. 304, 316 (1981) (hereafter "*Milwaukee II*") (footnote omitted).

⁵¹ Based on a snippet from *Milwaukee II*, 451 U.S. at 313, the Corps makes the curious argument that, "Neither Plaintiffs' complaint nor brief make any argument in favor of the development of federal common law." The issue is not whether federal common law needs to be developed here, but whether existing tenets of federal common law should be applied. "It is not uncommon for federal courts to fashion federal law where federal rights are concerned." . . . When we deal with air and water in their ambient or interstate aspects, there is a federal common law . . . " *Illinois v. Milwaukee*, 406 U.S. 91, 103 (1972) (hereafter *Milwaukee I*) (citations and footnote omitted).

⁵² 582 F.3d at 371.

⁵³ *United States v. Texas*, 507 U.S. 529, 534 (1993) (internal quotation marks omitted).

may take it as a given that Congress has legislated with an expectation that the common law principle will apply except when a statutory purpose to the contrary is evident."⁵⁴

In *Milwaukee I*, the Supreme Court upheld the right of Illinois to sue the City of Milwaukee in a federal public nuisance action relating to overflow discharges of untreated sewage into Lake Michigan despite the existence of several existing and new federal laws giving federal agencies the authority to control water pollution. The Court stated, "Until the field has been made the subject of comprehensive legislation or authorized administrative standards, only a federal common law basis can provide an adequate means for dealing with such claims as alleged federal rights."⁵⁵ "*Milwaukee I* stands for the proposition that if the extant statutes governing water pollution do not cover a plaintiff's claims and provide a remedy, a plaintiff is free to bring its claim under the federal common law of nuisance; a plaintiff is not obliged to await the fashioning of a comprehensive approach to domestic water pollution before it can bring an action to invoke the remedy it seeks."⁵⁶

The standards for displacement of federal common law were further clarified in *Milwaukee II* and subsequent cases. In *Milwaukee II*, the Supreme Court held that the new Federal Water Pollution Control Act Amendments of 1972 met the standard for displacement of federal common law nuisance to address the pollution at issue in that case because "Congress' intent in enacting the Amendments were clearly to establish an all encompassing program of water pollution regulation. Every point source discharge is prohibited unless covered by a permit, which directly subjects the discharger to the administrative apparatus established by

⁵⁴ *United States v. Texas*, 507 U.S. at 534 (internal quotation marks and alteration omitted).

⁵⁵ *Milwaukee I*, 406 U.S. at 107, n. 9.

⁵⁶ *AEP*, 582 F.3d at 330, citing *Milwaukee I*, 406 U.S. at 101-02.

Congress to achieve its goals."⁵⁷ "The establishment of such a self-consciously comprehensive program by Congress, which certainly did not exist when *Illinois v. Milwaukee* was decided, strongly suggests that there is no room for courts to attempt to improve on that program with federal common law."⁵⁸ "[F]ederal common law applies 'until the field has been the subject of comprehensive legislation or authorized administrative standards.'"⁵⁹

Apparent comprehensiveness of Congressional legislation is only one important indicia of displacement. After all, there appeared to be comprehensive legislation on the subject of water pollution in *Milwaukee I*. For there to be displacement, the comprehensive legislation also must address the problem at issue and address the problem specifically in order to displace the common law. "[T]he question whether a previously available federal common-law action has been displaced by federal statutory law involves an assessment of the scope of the legislation *and* whether the scheme established by Congress addresses the problem formerly governed by federal common law."⁶⁰

When a federal "Act does not address every issue . . . but when it does speak directly to a question, the courts are not free to 'supplement' Congress' answer so thoroughly that the Act becomes meaningless."⁶¹ "Thus the question was whether the legislative scheme 'spoke directly to a question' . . . --not whether Congress had affirmatively proscribed the use of federal common law."⁶² "The displacement question requires courts to distinguish between situations in which

⁵⁷ *Milwaukee II*, 451 U.S. at 318 (footnote omitted).

⁵⁸ *Milwaukee II*, 451 U.S. at 319.

⁵⁹ *Milwaukee II*, 451 U.S. at 314, citing *Texas v. Pankey*, 441 F.2d 236, 241 (10th Cir. 1971) (quoted in *Milwaukee I*, 406 U.S. at 107, n. 9).

⁶⁰ *Milwaukee II*, 451 U.S. at 315, n. 8 (emphasis added).

⁶¹ *Milwaukee II*, 451 U.S. at 315, quoting *Mobil Oil Corp. v. Higginbotham*, 436 U.S. 618, 625 (1978).

⁶² *Milwaukee II*, 451 U.S. at 315. See also, *AEP*, 582 F.3d at 374, quoting *County of Oneida v. Oneida Indian Nation of N.Y. State*, 470 U.S. 226, 236-37 (1985).

regulatory coverage leaves a 'gap' which federal common law can appropriately fill, and situations in which the federal common law overlaps with an existing regulatory scheme but would supply a different approach than the one Congress has mandated."⁶³

2. The federal statutes cited by Defendants and the City do not comprehensively and specifically address the particular question raised in Plaintiffs' action

This is a *Milwaukee I* case, not a *Milwaukee II* case. The federal statutes cited by Defendants and the City as having displaced federal common law do not comprehensively and specifically address the imminent threat of Asian carp invasion of Lake Michigan through the CAWS, and they do not provide the specific mandate or methods for adequately addressing the threat. Congress has not enacted laws that have displaced the need for judicial remedies under established principles of federal common law.

The only specific statutory provision relating to aquatic nuisance species in the CAWS cited by Defendants as a ground for displacement of federal common law is 16 U.S.C. § 4722(i)(3). Enacted in 1996, it authorized a "Dispersal barrier demonstration" project, to impede the dispersal of aquatic nuisance species in the Great Lakes, such as zebra mussels and round goby, through the CAWS into the Mississippi River basin, and ultimately led to the operation, beginning in 2002, of what the Corps now refers to as "Barrier I." Clearly, this "demonstration" project was intended by Congress to be, and still is, experimental in nature. It is not a comprehensive program for preventing Asian carp introduction and establishment in the Great Lakes, and the facts of this case show that it is far from effective.

Moreover, it is clear Congress did not intend this law to preclude the States from taking any legal actions necessary to prevent Asian carp from invading their waters. 16 U.S.C. § 4725, provides:

⁶³ *AEP*, 582 F.3d at 374, citing *Milwaukee II*, 451 U.S. at 324 n. 18.

All actions taken by Federal agencies in implementing the provisions of section 4722 of this title shall be consistent with all applicable Federal, State, and local environmental laws. Nothing in this chapter shall affect the authority of any State or political subdivision thereof to adopt or enforce control measures for aquatic nuisance species, or diminish or affect the jurisdiction of any State over species of fish and wildlife. Compliance with the control and eradication measures of any State or political subdivision thereof regarding aquatic nuisance species shall not relieve any person of the obligation to comply with the provisions of this subchapter.

Clearly, Congress did not intend this law to be inconsistent with or to prevent the States from "[enforcing] control measures for aquatic nuisance species" through the exercise of their federal common law nuisance rights. In sum, there is simply no support for the notion that 16 USC § 4722 or any other provision of the Aquatic Nuisance Prevention And Control law displaces the federal common law of nuisance to effectively address the imminent threat of Asian carp introduction into the Great Lakes.

Nor do the others laws cited by Defendants and the City, either individually or together, demonstrate a comprehensive attempt by Congress to address the imminent threat of Asian carp into the Great Lakes. The City cites in its brief at p 14 three other laws. The City is quoted as follows, with our brief response.

- "District of Columbia Appropriations Act, 2005 (2005 Act), Pub. L. No. 108-335, § 345, 118 Stat. 1352." That law merely authorizes the Chicago Sanitary and Ship Canal Dispersal Barrier at a total cost of \$9,100,000.
- "Water Resources Development Act of 2007 (2007 Act), Pub. L. No. 110-114, § 3061(b)(1)(A) and (d), 121 Stat. 1121." That law merely authorized the construction of "Barrier II" and it along with Barrier I, "constructed as a demonstration project . . . shall be considered to constitute a single project." This remains as a single experimental demonstration project.
- "Energy and Water Development and Related Agencies Appropriations Act, 2010, Pub. L. No. 111-85, § 126, 123 Stat. 2853 (2009)." That law provides, "*During the 1-year period beginning on the date of enactment of this Act*, the Secretary of the Army shall implement measures recommended in the efficacy study, or provided in interim reports, . . . with such modifications or emergency measures as the Secretary of the Army determines to be appropriate, to prevent aquatic nuisance species from

bypassing the Chicago Sanitary and Ship Canal Dispersal Barrier Project referred to in that section and to prevent aquatic nuisance species from dispersing into the Great Lakes." (Emphasis added). Enacted in 2009, the latter law will soon expire and leaves indefinite the effectiveness of any measures to be taken under its terms.

The Corps' brief at 24-25 cites, in addition to 16 U.S.C. § 4722 discussed previously, "Act of Dec. 4, 1981, Pub. L. No. 97-88, § 107, 95 Stat. 1135 (CSSC to be operated "in the interest of navigation"); Act of July 30, 1983, Tit. I, Ch. IV, 97 Stat. 301 (Chicago Lock); River and Harbors Act of 1946, Pub. L. No. 79-525, 60 Stat. 634 (July 24, 1946) (same, for O'Brien lock)." However, they are cited only for the proposition that "[t]he Corps operates the facilities in the CAWS pursuant to the statutes authorizing the works and regulating their uses. The Corps operates and maintains the CSSC as necessary to sustain navigation from Chicago Harbor on Lake Michigan to Lockport on the Des Plaines River." (Corps, p 24.) Any notion, as suggested by Corps (p 24) and District (p 25), that these laws were intended by Congress to authorize the Corps or anyone else to operate the locks in a manner so as to create a public nuisance, including the catastrophic introduction and establishment of Asian carp in the Great Lakes, would be preposterous.

The Defendants rely on *New England Legal Foundation v. Costle* for the proposition that "Courts traditionally have been reluctant to enjoin as a public nuisance activities which have been considered and specifically authorized by the government."⁶⁴ (Corps p 24.) However, contrary to the Defendants' assertion, this vague statement of legal principle is neither a fixed legal bar nor applicable to the facts of this case.

The facts of *Costle* were very different from the facts of this case. *Costle* involved a claim that the Long Island Lighting Company maintained a public nuisance by burning oil that

⁶⁴ *New England Legal Foundation v. Costle*, 666 F.2d 30, 33 (2nd Cir. 1981).

contained too much sulphur in its power plants.⁶⁵ The Second Circuit affirmed the District Court's dismissal of the case on the grounds that the Long Island Light Company held a permit lawfully issued by the Environmental Protection Agency pursuant to the statutory requirements of the Clean Air Act.⁶⁶ In so ruling, the Second Circuit stated the general principle that "Courts traditionally have been reluctant to enjoin as a public nuisance activities which have been considered and specifically authorized by the government."⁶⁷

As a preliminary matter, the Second Circuit did not hold that courts lack the authority to enjoin such conduct as a public nuisance, but merely that they are traditionally reluctant to do so. More substantively, *Costle* involved conduct (the burning of certain fuels) that had been "considered and specifically authorized" by the government via the emissions standards set forth in the Clean Air Act and the EPA's permitting regime.

In this case, Congress neither "considered" nor "specifically authorized" the operation of the locks in a manner that would give rise to a public nuisance. Congress clearly did not consider the threat of Asian carp when, years ago, it authorized the Corps to construct and operate the locks, therefore the manner in which the Corps currently operates the locks in the face of that threat was not "specifically authorized" by the government.

The extant statutes relating to the subject do not cover the Plaintiffs' claims nor provide an adequate remedy to Plaintiffs. None of the above laws, singly or collectively, establish a comprehensive statutory or regulatory regime directed specifically to prevent the introduction and establishment of Asian carp in the Great Lakes through the CAWS. At most, these laws are not even on par with the water pollution control measures in place at the time of *Milwaukee I*,

⁶⁵ *Costle*, 666 F.2d at 31-32.

⁶⁶ *Costle*, 666 F.2d at 32.

⁶⁷ *Costle*, 666 F.2d at 33.

and they do not even approach the level of comprehensiveness, specificity, and all-inclusiveness of measures for controlling point source discharges of pollution in the FWPCA of 1972 and found by the Supreme Court in *Milwaukee II* to have displaced the common law nuisance action by Illinois.

Lastly, *North Carolina ex rel. Cooper v. Tennessee Valley Authority*⁶⁸ relied upon by the District (at 25-28) is inapposite. The court ruled that a "patchwork of nuisance injunctions" would undercut the Congress' comprehensive effort to control air pollution through the federal Clean Air Act.⁶⁹ It further held that nuisance actions would not provide the courts with sufficient resources or standards to match the expertise and capabilities of the agencies charged with administering federal air pollution programs.⁷⁰ The instant case, however, does not involve the Clean Air Act or a nuisance action to abate air pollution arguably addressed by that law. As argued previously, this is not a case where Congress has established a "comprehensive effort to control" a particular pollution problem analogous to the FWPCA in *Milwaukee II*. In addition, there is no threat of a "patchwork of nuisance injunctions" to deal with this local, but potentially catastrophic, problem. The *Cooper* case simply does not apply here.

For the foregoing reasons, and the reasons stated in Plaintiffs' initial Brief, the federal common law of nuisance to prevent the introduction and establishment of Asian carp in Lake Michigan and the Great Lakes has not been displaced, Plaintiffs have stated a claim in federal public nuisance, and are likely to succeed on the merits of that claim.

D. Plaintiffs are likely to succeed on the merits of their appeals under the APA.

⁶⁸ *North Carolina ex rel. Cooper v. Tennessee Valley Authority*, No. 09-1623, 2010 U.S. App. LEXIS 15286 (4th Cir. July 16, 2010).

⁶⁹ *Id.* at *6, 25.

⁷⁰ *Id.* at *33."

1. The decision by the Corps to not consider extended lock closure as a means for preventing migration of Asian carp into the Great Lakes was arbitrary and capricious.

In their initial brief, Plaintiffs show that the Corps' decision in its "Interim III" Report to not allow the expert panel that was convened specifically to assess the effectiveness of possible options for modifying the operation of the Chicago and O'Brien locks to prevent migration of Asian carp, to even consider the most obvious option for addressing this problem – extended closure of the locks to effect a temporary physical separation of the CAWS from Lake Michigan – was arbitrary and capricious. While this conclusion is practically self-evident, Plaintiffs supported it with ample legal authority.

The Corps responded by arguing that its decision was not arbitrary and capricious because it had a good reason for limiting the options considered by its expert panel. According to the Corps, it did not consult with its experts because it had already concluded that it was too complicated to close the locks without first conducting some multiple year study. However, by adopting this course of action, the Corps failed to obtain *any* input from its panel of experts regarding the extended lock closure, and apparently relied exclusively on its own judgment for making its decision. It would have been much more rational to allow the panel of experts to at least assess the extended lock closure option in the context of the Asian carp threat. If the information gleaned from the expert panel was insufficient to persuade the Corps that extended lock closure was the right course, then the Corps could have made its decision at that juncture. By denying itself access to the expertise of its panel, the Corps severely limited the information it possessed when reaching the conclusion not to close the locks.

This outcome is particularly irrational in light of the assertion by the Corps in its Interim III report that assures that it is "prepared to respond . . . to any new information that arises . . . which in the judgment of appropriate experts represents a significant threat that a sustainable

population of Asian carp could become established in Lake Michigan . . . USACE is prepared to make recommendations related to lock closure and to consider any other appropriate actions . . . " (Darcy Dec, Att 1, p 53.) Of course, when the Corps had the opportunity to obtain the judgment of its own selected experts regarding the advisability of closing the locks in the face of the Asian carp threat, it absolutely refused to do so.⁷¹ (Darcy Ex 2, App. p 19.) This promise thus rings hollow given the Corps' insistence that it didn't even want to hear whether someone disagreed with its assessment that lock closure was unnecessary to thwart this invasion. It would appear that the entire expert panel process was nothing more than an effort to make it appear that the Corps was consulting with appropriate experts with regard to whether lock closure was warranted.

The Corps' reliance on case law that holds that a decision following "strenuous disagreement among the scientists and economists" regarding the interpretation of data and the analysis of difficult problems is thereby not "arbitrary and capricious,"⁷² and case law that finds it is an agency's prerogative to "weigh those opinions and make a policy judgment based on the scientific data,"⁷³ is misplaced. While the Corps pretended to consult with experts who had disagreements over appropriate courses of action, it did so only with regard to a limited suite of options relevant to its essentially pre-ordained conclusion. When it came to the only such option that might truly address the invasion threat, the Corps purposely shut itself off from all such debate and discourse and arbitrarily decided not to close the locks. Under these circumstances, it

⁷¹ That decision is all the more extraordinary and irrational, given the fact that a majority of the expert panel actually advised the Corps that under the present conditions there was actually an "imminent threat that Asian carp . . . will establish in Lake Michigan in the near future."

⁷² *Associated Fisheries of Maine, Inc. v. Daley*, 954 F. Supp 383, 389 (D. Me. 1997).

⁷³ *Southern Offshore Fishing Ass'n v. Daley*, 995 F. Supp. 1411, 1432 (M.D. Fla. 1998).

is likely that the Plaintiffs will be able to show that the Corps acted in an arbitrary and capricious manner and that its decision in the Interim III Report not to close the locks should be reversed.

2. In addition to their challenge to the "Interim III" decision, Plaintiffs have appealed from, and are likely to prevail in, a series of other final decisions by the Corps.

As the Court is aware, the Plaintiffs are challenging a number of the Corps' decisions in this case. Those decisions include, without limitation: (i) the decision to operate the CAWS in a manner that allows Asian carp to enter Lake Michigan; (ii) the decision of the Corps to rely almost exclusively on the Dispersal Barrier System as its method for precluding Asian carp from entering the Great Lakes despite knowing this system is of limited effectiveness; (iii) the reopening of the O'Brien Locks and the continued operation of the locks in December 2009 and May 2010; (iv) the denial of relief repeatedly requested by the Plaintiffs in the form of written requests and the prior litigation before the United States Supreme court; and (v) the adoption of the "no change in operation" option described in the Interim III Report which means that the Corps will continue to reopen the locks without any change in operation to reduce the Asian carp threat. (Plaintiffs' Br, pp 44-45.)

The Corps contends that the majority of the decisions the Plaintiffs are challenging are beyond judicial review. (Corps p 29, fn 8.) With the exception of the adoption of the "no change in operation" option in the Interim III Report, the Corps claims that all of its challenged decisions in this case are non-final and therefore non-reviewable decisions. The Corps' argument on this point must fail because the three cases the Corps cites do not actually support the Corps' position.

In *Franklin v. Massachusetts*,⁷⁴ the Commonwealth of Massachusetts and two of its registered voters challenged the method used for counting overseas federal employees for legislative reapportionment purposes as part of the decennial census. In bringing their challenge, the plaintiffs attempted to challenge a census report that the Secretary of commerce submitted to the President of the United States. The Supreme Court held that the Commerce Secretary's report was not a final agency action subject to review under the APA because the report itself carried no direct consequences to reapportionment.⁷⁵ Under the relevant statute, the Court concluded that the action that would create an actual effect on reapportionment would be a subsequent Presidential statement to Congress and not the Secretary's report to the President. The Court therefore concluded that the Secretary's report was only a tentative recommendation and not a final agency action.

Similarly, in *Dalton v. Specter*,⁷⁶ the Supreme Court held that a federal commission's action in recommending military bases for closure was not reviewable under the APA because the commission's action was only a recommendation and not a final agency action. In holding that the commission's recommendation was not a final agency action, the Court noted that the commission's actions would carry no direct consequences for any military bases unless and until the President submitted a certification of approval to Congress.⁷⁷ The court determined that the commission's action was "more like a tentative recommendation than a final and binding determination."⁷⁸

⁷⁴ *Franklin v. Massachusetts*, 505 U.S. 788 (1992).

⁷⁵ *Franklin*, 505 U.S. at 797.

⁷⁶ *Dalton v. Specter*, 511 U.S. 462 (1994).

⁷⁷ *Dalton*, 511 U.S. at 469-70.

⁷⁸ *Dalton*, 511 U.S. at 469-70; quoting *Franklin*, 505 U.S. at 798.

Here, the Corps does not and cannot claim that its actions regarding Asian carp are mere recommendations subject to implementation by some superior authority. The Plaintiffs are not challenging recommendations in this case. The Plaintiffs are challenging tangible, physical actions that the Corps has taken and continues to take. Unlike the recommendation in *Dalton*, the Corps' actions in this case carry very real and direct consequences to the Great Lakes. Specifically, the Corps' actions have allowed and continue to allow the very environmental harm the Plaintiffs are trying to prevent because the Corps' actions are facilitating the migration of Asian carp into the Great Lakes.

The third case the Corps cites, *Bennett v. Spear*,⁷⁹ supports the conclusion that the Corps' actions in this case are final agency actions subject to judicial review under the APA. In *Bennett*, ranch operators and irrigation districts challenged a biological opinion issued by the Fish and Wildlife Service under the Endangered Species Act. The government argued that the biological opinion was not a final agency action subject to judicial review under the APA, but the Supreme Court rejected that argument.⁸⁰ In so ruling, the Court held that the biological opinion would alter the conditions under which the agency could take endangered species. Because the biological opinion would have direct consequences on the project at issue, the Court held that the biological opinion was a final agency action subject to APA review.

Bennett also set forth the two-part test for determining whether an agency action is final for purposes of judicial review. Specifically, *Bennett* establishes that an agency action is final when: (1) the agency's decision-making process is consummated – the decision cannot be of a

⁷⁹ *Bennett v. Spear*, 520 U.S. 154 (1997).

⁸⁰ *Bennett*, 520 U.S. at 177-78.

"tentative or interlocutory nature" and (2) the action must be one by which "rights or obligations have been determined," or from which "legal consequences will flow."⁸¹

Applying the *Bennett* test to this case clearly shows that the Corps' actions constitute final actions which are subject to judicial review. Here, Plaintiffs are challenging the tangible conditions under which the Corps is operating the CAWS lock and dam system because the Corps' actions have created and maintained a pathway for Asian carp to migrate into the Great Lakes. The chain of decisions to maintain this pathway has not been tentative or interlocutory, and legal consequences have clearly flowed therefrom. Under the Supreme Court's reasoning from *Bennett*, the Corps' actions in this case are therefore subject to judicial review.⁸²

CONCLUSION AND RELIEF REQUESTED

Each of the factors applied by the Court in determining whether to issue preliminary injunctive relief weighs in favor of the Plaintiffs. Accordingly, Plaintiffs request that the Court enter an order providing the following relief:

1. Enter a Preliminary injunction enjoining the Defendants to immediately take all available measures within their respective control, consistent with the protection of public health and safety, to prevent the migration of bighead and silver carp through the CAWS into Lake Michigan, including, but not necessarily limited to, the following:

- (a) Using the best available methods to block the passage of, capture or kill bighead and silver carp that may be present in the CAWS, especially in those areas north of the O'Brien Lock and Dam.

⁸¹ *Bennett*, 520 U.S. at 177-78 (citing *Chicago & Southern Air Lines, Inc. v. Warterman S.S. Corp.*, 333 U.S. 103, 113 (1948); *Port of Boston Marine Terminal Ass'n v. Rederiaktiebolaget Transatlantic*, 400 U.S. 53, 71 (1970)).

⁸² Because Plaintiffs have shown a likelihood of success on the merits of the common law nuisance claim as well as several claims under the APA, it is not necessary at this point to address the Defendants' responses to all of the APA claims.

(b) Installing block nets or other suitable interim physical barriers to fish passage at strategic locations in the Calumet River between Lake Calumet and Calumet Harbor.

(c) Temporarily closing and ceasing operation of the locks at the O'Brien Lock and Dam and the Chicago River Controlling Works except as needed to protect public health and safety.

(d) Installing and continuously maintaining permanent grates or screens, along with any debris removal equipment necessary to prevent blockage or clogging of such grates or screens, on or over the openings to all the sluice gates at the O'Brien Lock and Dam, the Chicago River Controlling Works, and the Wilmette Pumping Station in a manner that conforms to the specifications detailed in Appendix A to the Corps' Interim III Report (Darcy Dec, Att 2) or otherwise will be as effective at preventing Asian carp from passing through these structures as the grates or screens specified in that Report.

(e) Installing and maintaining block nets or other suitable interim physical barriers to fish passage as needed in the Little Calumet River to prevent the migration of bighead and silver carp into Lake Michigan, in a manner that protects public health and safety.

(f) As a supplement to physical barriers, applying rotenone at strategic locations in the CAWS, especially those areas north of the O'Brien Lock and Dam where bighead and silver carp are most likely to be present, using methods and techniques best suited to eradicate them and minimize the risk of their movement into Lake Michigan.

(g) Continue comprehensive monitoring for bighead and silver carp in the CAWS, including resumed use of environmental DNA testing.

2. Enter a preliminary injunction requiring the Corps to expedite the preparation of a feasibility study, pursuant to its authority under Section 3601 of the Water Resources Development Act of 2007, developing and evaluating options for the permanent physical separation of the CAWS from Lake Michigan at strategic locations so as to prevent the transfer of Asian carp or other invasive species between the Mississippi River Basin and the Great Lakes Basin. Specifically, the Corps should be required to:

(a) Complete, and make available for public comment, within six months, an initial report detailing the progress made toward completion of the evaluation.

(b) Complete, and make available for public comment, within twelve months, a second, interim report detailing the progress made toward completion of the evaluation.

(c) Complete, and make available for public comment, within eighteen months a final report detailing the results of the evaluation and recommendations for specific measures to permanently physically separate the CAWS from Lake Michigan at strategic locations to prevent the migration of bighead carp, silver carp or other harmful invasive species between the CAWS and the Great Lakes.

3. Grant the Plaintiff States such other relief as the Court determines just and proper.

Respectfully submitted,

MICHAEL A. COX
Attorney General of Michigan

S. Peter Manning
Division Chief

/s/ Robert P. Reichel
Robert P. Reichel (P31878)
Louis B. Reinwasser (P37757)
Daniel P. Bock (P71246)

Assistant Attorneys General
Environment, Natural Resources,
And Agriculture Division
525 W. Ottawa Street
P.O. Box 30755
Lansing, MI 48909
(517) 373-7540 (phone)
(517) 373-1610 (fax)

reichelb@michigan.gov

Attorneys for State of Michigan

J.B. VAN HOLLEN
Attorney General of Wisconsin

/s/Cynthia R. Hirsch, by /s/ Robert P.
Reichel, pursuant to written authorization on
August 13, 2010

CYNTHIA R. HIRSCH
Assistant Attorney General
State Bar #1012870
Attorneys for State of Wisconsin

Wisconsin Department of Justice
Post Office Box 7857
Madison, Wisconsin 53707-7857
(608) 266-3861
(608) 266-2250 (Fax)

hirschcr@doj.state.wi.us

Attorneys for State of Wisconsin

LORI SWANSON
Attorney General of Minnesota

STEVEN M. GUNN
Deputy Attorney General

/s/ Steven M. Gunn, by /s/ Robert P.
Reichel, pursuant to written authorization on
August 13, 2010

Steven M. Gunn
Deputy Attorney General
Minnesota Atty. Reg. No. 0038647

David P. Iverson
Assistant Attorney General
Minnesota Atty. Reg No. 0180944

445 Minnesota St., #900
St. Paul, MN 55101-2127
(651) 757-1466

Steven.Gunn@state.mn.us
Dave.Iverson@state.mn.us

Attorneys for State of Minnesota

RICHARD CORDRAY
Attorney General of Ohio

/s/ Lee Ann Rabe, by /s/ Robert P. Reichel,
pursuant to written authorization on
August 13, 2010

Lee Ann Rabe
Dale T. Vitale
David M. Lieberman
Jeannine R. Lesperance
Assistant Attorneys General
Office of the Attorney General
30 East Broad Street
Columbus, OH 43215

LeeAnn.Rabe@ohioattorneygeneral.gov

Attorneys for the State of Ohio

THOMAS W. CORBETT, JR.
Attorney General of Pennsylvania

/s/ J. Bart DeLone, by /s/ Robert P. Reichel,
pursuant to written authorization on
August 13, 2010

J. Bart DeLone
Assistant Attorney General
16th Floor, Strawberry Square
Harrisburg, PA 17120
(717) 783-3226

jdelone@attorneygeneral.gov

Attorneys for Commonwealth of
Pennsylvania

Dated: August 13, 2010

ENRA/cases/2009/Asian Carp/USDC/ILND/Plaintiffs' Reply